Niveau(x) d'enseignement: 7 Numéro EDUQ : 8170122
Centre d'intérêt: 60

Woodruff, Susan.

The evaluation of the student learning centre at Champlain Regional College, St. Lambert, Quebec : report submitted to the Direction générale de l'enseignement collégial, Service des programmes / presented by Susan Woodruff, Susan Kerwin-Boudreau. -- [Saint-Lambert? : s.n.], 1980.

x, 207 p. ; 28 cm.

Bibliographie: p. 85-88.

Cote Dewey: 378.19'09714/W893e Cote LC: LB/1029/.R4

Descripteur(s): *Centre d'apprentissage *Enseignement correctif *Evaluation de l'enseignement *Tutorat *Test *Collégial (Niveau)

Présentation des résultats d'une recherche visant à évaluer l'efficacité de l'enseignement dispensé dans le cadre du centre d'apprentissage du collège régional Champlain, à Saint-Lambert. Le centre vise à dispenser un enseignement correctif sur les connaissances de base, en dehors des heures régulières, aux étudiants manifestant des lacunes importantes. Suite à une revue de la documentation sur les centres d'apprentissage, le document décrit les diverses facettes de celui implanté au collège Champlain: personnel, ressources matérielles, étudiants, méthodes d'évaluation... L'évaluation proprement dite occupe la dernière partie du document.

L'enquête s'est déroulée en 1979-1980. En mai 1979, tous les nouveaux étudiants furent soumis à une batterie de tests: Diagnostic Reading Test (1966), College English Placement Test (1969), Study Habits Cheeklist (1967), Survey of Study Habits and Attitudes (1965), Self-Concept Scale. Les étudiants (62) fréquentant le centre d'apprentissage ainsi que quatre groupes de contrôles (181 étudiants) ont été soumis, à la fin des semestres d'automne et d'hiver à la même batterie de tests. Il s'agissait de comparer leurs progrès respectifs en lecture, en rédaction, en méthode de travail et en connaissance de soi.

Les étudiants qui ont fréquenté le centre d'apprentissage n'ont pas mieux réussi que les autres. En fait, les résultats à la batterie de tests ne permettent de départager aucun groupe. Il est possible qu'une enquête à long terme donnerait une meilleure idée des progrès accomplis par les étudiants et soulignerait l'apport du centre d'apprentissage. On peut par ailleurs douter de l'efficacité de tests standardisés pour rendre compte de la valeur de programmes spéciaux dispensés par un centre d'apprentissage.

Type de document: r
Notice(s) connexe(s): 8170318
Financement: Bénéficiaire - Collège régional Champlain

Organisme(s) source(s) - MEQ - DGEC
Programme(s) de subvention - PROSIP
Auteur de l'analyse: ar

THE EVALUATION OF:

THE STUDENT LEARNING CENTRE AT CHAMPLAIN REGIONAL COLLEGE ST. LAMBERT, QUEBEC

PRESENTED BY:

SUSAN KERWIN-BOUDREAU

SUSAN WOODRUFF

JUNE 1980

E D U Q 8170122

THE EVALUATION
OF
THE STUDENT LEARNING CENTRE
AT
CHAMPLAIN REGIONAL COLLEGE
ST. LAMBERT, QUEBEC

PRESENTED BY:

SUSAN WOODRUFF

SUSAN KERWIN-BOUDREAU

Report submitted to the Direction Générale de
L'enseignement Collégial, Service des Programmes,
June, 1980

Acknowledgements

The authors of this report wish to thank all the students who participated in this project for their tolerance in the face of the many hours of testing which they had to undergo in order to make this evaluation possible. They wish to thank Laurie Linehan, featured on our cover, who worked patiently for them this year, diligently recording all of the test scores, rounding up the people to be tested, helping the tutors develop their programmes and even doing the testing when necessary. Without her calm and efficient presence, much of what is included in this report would not have been feasible. Special thanks are also due to all of the secretaries who helped in the typing of this report: Agnes Dalrymple, who put up with our constant changes of mind; Linda Glover who so willingly took over from Agnes; Julie Olin for filling in when she had a free moment; and Lorna Kelly who returned from her holidays to be faced with helping to finish the typing under major time constraints. A large share of the credit for the evaluation process is due to Rhonda Amsel, of McGill University's Psychology department, for her care in doing the statistical analyses and for her assistance in interpreting the results. Robert Schmidt of our audio-visual department prepared the cover, and we wish to thank him for his splendid effort. And finally, special tribute should be paid to our husbands, Peter Woodruff and Spencer Boudreau, for their patience and support throughout all stages of this research, and for their tolerance for our spotty presence during our respective house moves in June.

Abstract

This report represents the results of an intensive investigation undertaken by the two authors from May 1979 - June 1980. The effectiveness of the student learning centre at Champlain Regional College (St. Lambert) has been evaluated. Students who received more than seven hours of tutoring in the learning centre were compared to students from four control groups on campus, on the basis of gain scores in the areas of reading, writing, study behavior and self-concept. No consistent group differences were found. This report will provide an overall model of a student learning centre, which can be adopted and adapted by other CEGEPs, both anglophone and francophone. Campus-wide statistics for St. Lambert on the performance of all incoming students in the areas of reading, writing, study behavior and self-concept will be presented. Suggestions for follow-up research on the evaluation of a learning centre will be provided.

Table of Contents

Acknowledgements ii
Abstract iii
Table of Contents v
List of Tables vi
List of Figures x
Introduction 1
Review of the Research Relating to Learning Centres . . . 7
The Student Learning Centre at Champlain - St. Lambert . . 28
Evaluation of a Learning Centre 47
Results 52
Discussion and Follow-up 75
References 85
Appendix A 89
Appendix B 143
Appendix C 149
Appendix D 153
Appendix E 159
Appendix F 179
Appendix G 183
Appendix H 189
Appendix I 197
Appendix J 203
Appendix K 207

List of Tables

		Page
Table 1	Number of students in the four control groups for the Fall 1979 and Winter 1980 Semesters	48
Table 2	Overview of the experimental design used to evaluate the student learning centre at Champlain-St. Lambert for 1979-1980	50
Table 3	Breakdown by Gender of Subjects in the experimental group, according to subject tutored, and control groups, Fall and Winter Semesters	51
Table 4	Mean Score, mean percentile rank, where applicable and standard deviation for students tested in May 1979	52
Table 5	Mean Score, mean percentile rank, where applicable and standard deviation for males tested in May, 1979	53
Table 6	Mean Score, mean percentile rank, where applicable and standard deviation for females tested in May 1979	54
Table 7	Mean Score and standard deviation on the D.R.T., C.E.P.T., Essay and Self-Concept Scale by Language Spoken at home	56
Table 8	Mean Score and standard deviation on the Study Habits Checklist and Composite Scales (3, 6 and 7) of the S.S.H.A. by Language Spoken at Home	57
Table 9	Variables which have been significantly correlated at the $p < 0.5$ Level of Significance	60
Table 10	Table of Means for Study Habits Checklist, Raw Score, Group x Gender x Pre-Post Interaction, Fall Semester	204
Table 11	Table of Means for Study Habits Checklist, Raw Score, Group x Pre-Post Interaction, Winter Semester	204
Table 12	Table of Means for Study Habits Checklist, decile score, Group x Gender x Pre-Post Interaction, Fall Semester	204

Page

Table 13 Table of Means for Study Habits Checklist, Decile Score, Group x Gender x Pre-Post Interaction, Winter Semester..... 204

Table 14 Table of Means for Essay Group x Gender x Pre-Post Interaction, Fall Semester..... 205

Table 15 Table of Means for S.S.H.A., Delay Avoidance, Group x Gender x Pre-Post Interaction, Fall Semester..... 205

Table 16 Table of Means for S.S.H.A., Work Methods, Group x Gender x Pre-Post Interaction, Fall Semester..... 205

Table 17 Table of Means for S.S.H.A., Study Habits, Group x Gender x Pre-Post Interaction, Fall Semester..... 205

Table 18 Table of Means for S.S.H.A., Teacher Approval, Group x Gender x Pre-Post Interaction, Fall Semester..... 206

Table 19 Table of Means for S.S.H.A., Education Acceptance, Group x Gender x Pre-Post Interaction, Fall Semester..... 206

Table 20 Table of Means for S.S.H.A., Study Attitudes, Group x Gender x Pre-Post Interaction, Fall Semester..... 206

Table 21 Table of Means for S.S.H.A., Study Orientation, Group x Gender x Pre-Post Interaction, Fall Semester..... 206

Table 22 Table of Means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction, Study Habits Checklist, raw score, Winter Semester..... 209

Table 23 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction on the Study Habits Checklist, decile rank, Winter Semester..... 209

Table 24 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction on the Self-Concept Scale - Now - Fall Semester..... 209

Table 25 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the Diagnostic Reading Test..... 209

Page

Table 26 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the Diagnostic Reading Test, Winter Semester.....210

Table 27 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the College English Placement Test, Fall Semester.....210

Table 28 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the College English Placement Test, Winter Semester.....210

Table 29 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction, on the Essay, Fall Semester...210

Table 30 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction, on the Essay, Winter Semester.210

Table 31 Table of means for students tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction, on the Survey of Study Habits and Attitudes, Work Methods, Fall Semester.....211

Table 32 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Work Methods, Winter Semester.....211

Table 33 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Fall Semester.....211

Table 34 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Winter Semester.....211

Page

Table 35 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Teacher Approval, Education Acceptance, Study Attitude and Study Orientation Scales, Fall Semester..... 212

Table 36 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-test Interaction on the Survey of Study Habits and Attitudes, Education Acceptance and Study Orientation, Winter Semester..... 212

List of Figures

Figure		Page
1	Skills Improvement Options at Champlain Regional College - St. Lambert	32
2	Agenda: Tutor Training Session	36

INTRODUCTION

More and more students are graduating from high school today without the basic skills necessary to succeed in college. According to Maxwell (1979), this problem is further compounded by the fact that, in contrast to high school, college gives students greater freedom, for professors assume that they have the self-direction and self-discipline to learn and study on their own. Furthermore, college students are expected to be able to perform at new and higher levels. Unfortunately, their high school reading and study skills which may have gained them adequate high school grades are often still in use, and soon prove inadequate for college-level content.

The problem of the underprepared student is one that affects each and every academic institution in North America today: the large and small, public and private, open door and highly selective (Priestley and Kerpneck, 1976). As Roueche and Snow (1977) point out: "the problem is not limited to minority and disprivileged or to working-class populations. It permeates the entire population. The students come from all walks of life, all levels of socioeconomic backgrounds, and all levels of ability." Thus,

today's problem students represent all of society. Cross (1976) reported that the majority of low achievers gaining admission to colleges are not ethnic minorities, but rather are predominantly the white sons and daughters of blue-collar workers.

Whether one refers to these students as the new students (Cross, 1976), the underprepared students (Maxwell, 1979), or the high risk students (Moore, 1976), they all share in common the fact that they score significantly below the typical student on traditional measures of academic achievement.

The problem of how to deal with these students is not new. As Cross (1976) points out, American higher education has had almost a century of experience with remedial education, beginning with the first course in remediation for academic difficulties introduced at Wellesley College in 1894. By the late 1940's, reading, writing and how-to-study courses were available in many American university settings to any student who could afford tuition fees. The tide had changed somewhat by the 1950's and 1960's when universities and four-year colleges, faced with more applicants than they could admit, became very selective in their admissions policies, requiring prospective students to undergo batteries of achievement and ability tests. According to Roueche and Pitman (1972), these institutions specialized in the recruitment of students who had no learning problems at all. Again

another shift came in the late 1960's when universities had to cope with the problem of declining birthrates and began competing for high school graduates to fill their classrooms. The selective admissions policy of the 1950's and early 1960's became the open door policy especially at the two year community college level.

Many colleges were forced to deal with the problem of the nontraditional or underprepared student, who enrolled as a result of this open door policy. Roueche and Snow (1977) report that by 1968, remedial programmes were commonplace in community colleges. Typically, students would enroll in basic skills courses that included reading, writing and study skills development. These courses were sometimes voluntary; elsewhere enrollment was mandatory. They were sometimes offered for regular credit; in other institutions they were offered without credit.

Regardless of the nature of these traditional remedial courses, most critics maintain that they are failures and are not the best way to help underprepared students gain the skills and knowledge they need. Researchers maintain that such courses are the worst possible way to deal with the problems of academically weak freshmen because they kill student motivation (Maxwell, 1979 p. 22). In such a group setting, it becomes impossible for the professor to individualize instruction, in order to suit the

needs of all students. Thus, individual learning styles or rates of learning cannot very feasibly be taken into account. Roueche and Snow (1977) report that in the few colleges where evaluation data is available, as many as 90% of all students assigned, advised or counseled into remedial programmes never completed them. They had, in effect, overwhelmingly failed in programmes designed to improve their chances for academic success.

Several different reasons have been cited to account for the failure of these remedial courses. First of all, such programmes were often labeled special or supportive and students in many ways were considered different from regular students. New faculty, possessing no knowledge of the special needs of the underprepared student, were often assigned to teach these programmes with the promise of eventually working their way up to teach regular courses (Priestley and Kerpneck, 1976). The dual stigma attached to both taking and teaching remedial courses could not help but discourage students, thus leading to even lowered self-concepts. Teachers were encouraged to expect less of these students resulting in somewhat of a self-fulfilling prophecy.

Even more important was the fact that these remedial programmes typically were kept apart from the mainstream of academic life. It was somehow expected that the student, enrolled in one or two remedial courses, would automatically make the transfer of training

to his other regular courses. For example, it was believed that reading skills learned in a reading efficiency course would transfer automatically to other subjects such as to the sciences and to mathematics.

Today researchers realize that skills training cannot be done in isolation. In order to be effective, it must be integrated into the other college experiences of the student. Bridges between courses must be carefully and consciously built, so that the transfer of training is allowed to occur (Cross, 1976). The emphasis must be placed on teaching reading, writing, and study skills within content areas (Roueche and Snow, 1977).

It must be noted, however, that some remedial programmes have experienced some measure of success. This is particularly so when the emphasis is placed both upon skills building and the transfer of this training to other subject areas. Such a programme which combines a course in reading efficiency and study skills with a course in the implementation of these skills in all subject areas has been described by Schwartz (1977) and is presently in operation at Champlain College, St. Lambert, Quebec. The disadvantage of this programme is that the courses are limited to small numbers and instruction cannot be tailored to suit individual learning needs. Nor can there be more than passing attention paid to the problems of increasing the self-concept of the poor student.

Learning centres represent the latest in a long series of attempts designed to help students adjust to the academic demands of college. They are a relatively new phenomenon, with the majority of them having been established after 1970 (Cross, 1976). They appear to counterbalance some of the disadvantages of the other remedial systems cited above.

The next section will provide an intensive discussion of the research related to learning centres.

REVIEW OF THE RESEARCH RELATING TO LEARNING CENTRES

A learning centre may be defined as a place to which students can go or be sent for special instruction in basic skills development, outside of regular classroom time. According to Roueche and Snow (1977), colleges which have such centres report that more students persist and complete [courses and programmes of study] than do colleges without these centres.

The following section will examine the relevant literature on learning centres.

Included will be a discussion of the staffing of learning centres, the tutoring process itself and methods of assessing students who use the centre.

Staffing

The number of people employed by a learning centre varies with the size of the institution it serves. Usually, however, at least one professional counsellor or learning skills specialist is hired to oversee the organization of the centre. A body of student tutors often serves as the backbone of such centres. These tutors may either be paid for their services or receive course credit.

A tutor can be defined as one who, with a minimum of special training helps one or more students in a skill and/or subject area, under the guidance of a teacher or other professional supervisor.

Tutor Selection

A crucial attribute of those helping the under-prepared student must be a sense of caring about that person. Thus tutors must be chosen more on the basis of being people-oriented rather than simply problem-oriented, if they are to effect change in the student who seeks help. Roueche and Snow (1977) demonstrate that those programmes which selected tutors on the basis of their ability to interact on a personal level showed greater success in their attempts to assist high risk students.

Tutor Training

Surveys suggest that more than half the college tutoring programmes today offer some form of training for their tutors (Roueche and Snow, 1977; Woolley, 1976). Harrison (1969) reported that student tutors who received training were four times as effective as untrained tutors in helping their tutees achieve the specified objectives.

Typically, the training of peer tutors takes place in either a half-day or a full-day session (Maxwell, 1979). However, some form of weekly supervision is also necessary.

Roueche and Snow (1977) outline three elements in the training of peer tutors that they consider essential for successful programmes.

These are study skills or academic attack skills, teaching and counseling techniques and most importantly, motivational techniques related to self-concept development.

A knowledge of effective reading and study skills is considered essential for success in any subject area. During the training session, the tutor should be reintroduced to basic strategies such as time management, how to read textbook material and note-taking and test-taking techniques. It is then his responsibility to transmit this information to his tutee, regardless of the subject area being tutored.

The use of role-playing and modeling can be instrumental in introducing student tutors to effective teaching and counseling methods to be used in their tutoring. Several institutions are also developing and using videotapes for similar purposes (Maxwell, 1979; Kerwin-Boudreau and Woodruff, 1980).

The importance of training tutors in self-concept developmental techniques should not be underestimated. Although it stands as a somewhat uncommon practice, Roueche and Snow (1977) report a significant relationship between high-risk student success and the training of tutors in self-concept techniques. They further state that "... when a college commits itself to the development of student self-concept, it is more successful in the number of students who complete the programme, persist to the third semester, and eventually complete some certified programme." (p. 40).

Tutor Evaluation

According to Roueche and Snow (1977), student evaluation of peer helpers is a valid procedure, in that it does differentiate between the more successful and the least successful colleges, in terms of their relative abilities to improve student learning. Snow et al (1975) report that the feedback derived from student evaluations at this level is valuable in developing effectiveness criteria for the selection and training of tutors.

The Tutoring Process

One of the major disadvantages of traditional remedial courses is their failure to take individual learning styles into account. Students enrolled in such courses need individualized attention yet this becomes impossible within the confines of a group classroom setting. In such a group there will undoubtedly be many levels of ability and the weakest students often feel intimidated by teachers and by their more capable peers. After years of failure in similar settings, these low-achieving students frequently lack motivation to succeed and have poor self-concepts.

Individualized tutoring by peers in a student learning centre helps to overcome some of these difficulties. Frequently the underprepared student may feel too intimidated to ask the instructor, teaching assistant or even other students for help. This same

student, however, may feel very comfortable in seeking tutoring when he knows that the assistance he gets will be nonjudgemental and will not have a negative effect on his course grades (Maxwell, 1979).

Much research has been conducted on the effects of tutoring (Allen, 1976; Gartner et al, 1971). Studies consistently show that when structured tutoring is appropriately used, definite learning gains result for the tutees, or those receiving tutoring. Structured tutoring implies that the tutors work on particular prediagnosed skills and content.

Watanabe and Maxwell (1975) state that when underprepared students voluntarily seek and receive enough tutoring on a regular basis, they will receive higher grades in the course.

According to Maxwell (1979), the two most widely accepted approaches today for improving students' skills are mastery learning and peer learning.

In mastery learning, the student must demonstrate that he has mastered the content at a sufficiently high level of achievement, in order to qualify for a passing grade. Whereas in most courses, a passing grade is set at 50 - 60%, the student in a mastery learning system is required to achieve an 80 - 80%. The student, however, is provided with several opportunities to reach

this goal. (Keller, 1974).

Peer learning simply refers to the use of students of the same age who tutor each other in either basic skill or subject areas.

In a comparison of mastery learning and peer learning Maxwell (1979) concludes that peer learning is the superior technique. She claims that peer learning or peer tutoring is the most popular technique for aiding the underprepared student in both skill and subject-matter areas. In every skill area, peer-learning methods have been reported as successful. In contrast, mastery learning programmes have proven to be most successful for the best-prepared student while underprepared students often perform poorly in such courses or drop out.

The tutors, as well as the tutees, benefit greatly from the tutoring experience. Research indicates that tutoring improves the achievement and attitudes towards school of both tutor and tutee in studies of both cross-age and peer tutoring at the public school level (Gartner et al. 1971; Shaver and Nuhn, 1971). The same effects seem to hold true for college tutors. McWhorter and Levy (1971), and Schwartz (1977) found that college students who tutored elementary school students in basic reading improved their own skills. At the collegial peer-tutoring level, Hoover (1972) noted similar improvement for tutors in English, and Jackson and

Van Zoost (1974) for tutors in study skills. In addition, both Drucker (1976) and Hedges et al (1976) noted that peer tutoring at the college level improves both the tutors' skills in science as well as the tutees'. It would appear that the aphorism "To teach is to learn" does hold true.

Testing: Diagnosing the Basic Skills Levels of Students

Standardized pre and post tests are usually considered the minimum criterion for evaluating any publicly-funded research programme. However, as Maxwell (1979) has noted, there are a number of inherent limitations in the use of these instruments. First, these tests rarely reflect the objectives of specific skills programme; they test more general skills. Secondly, standardized tests are reliable, which means that they have been designed to be relatively impervious to change, particularly over a brief period. And finally, standardized tests have very limited application in assessing individualized skills programmes. If students work on different skills, at different levels and at different rates, student gains in the various areas will not necessarily be reflected, unless one uses a lengthy battery of tests.

In spite of these drawbacks, Roueche and Snow (1977) in an intensive review of developmental programmes available at American two and four year colleges, note that diagnostic testing services

are on the rise. Their research showed that 83% of the community colleges now offer these services as well as 68% of senior colleges. They also note that the trend in testing continued to be battery testing, that is administering a number of different tests, rather than unitary testing. In their survey, those colleges with the most successful developmental or remedial programmes utilized more tests and frequently included a self-concept test in their battery, as opposed to the less successful colleges which used unitary testing procedures or had no testing at all.

The following section will review the literature relating to those standardized tests that are often included in the battery administered to college students.

Reading Tests

The use of standardized reading tests for the assessment of student's reading ability is a long established practice. Essentially, these tests are used for two complementary purposes: To answer the question "How well do students presently read?" and "What do they need to know to improve their reading ability?" (Schreiner, 1979 p. 3).

Maxwell (1979 p. 41) states that ninety-five percent of college reading programs use standardized reading tests to select, place and/or to evaluate the progress of students. Among the tests most commonly used are the Nelson-Denny Reading Test, published by the Houghton-Mifflin Company; the Reading Test, McGraw-Hill Basic Skills Systems, published by McGraw-Hill Book Company, Incorporated; and the Diagnostic Reading Test-Survey Section, by the Committee on Diagnostic Testing.

Each of these tests has some applicability for the purpose of selection and placement of poor readers. No one test, however, provides more than a general overview of the reading ability of any given student. Furthermore none of these tests can be used to predict the student's capability in dealing with college-level textbook material. Individual colleges must therefore determine which test will generate enough information about the overall level of reading ability of its student population to justify its administration to large groups. Considerations such as restrictions of time and number

of personnel needed to administer these tests usually will be taken into account when a decision to use a particular diagnostic reading test is made.

On a more theoretical level, the test administrator must also choose a test on the basis of its reliability and content validity.

Validity refers to the consistency with which a test measures what it is intended to measure. Thus a reading test should include items which measure the student's reading ability in each of the areas which it purports to assess. Reliability refers to the consistency with which a test measures whatever it does measure over time. A test package which offers parallel forms should also be verified to ensure that the various forms are consistent and comparable to one another.

The Nelson-Denny Reading Test is most often used for the purposes of assessing gain in reading performance, according to Maxwell (1979). This test appeals to many reading specialists as it takes only 30 minutes to administer and yet still provides scores in the sub-areas of speed and comprehension and vocabulary. Parallel forms A and B may be used with confidence, as they have been analyzed and accepted as being both valid and reliable.

The Diagnostic Reading Test - Survey Section may be used for purposes similar to the Nelson-Denny Reading Test. It, too, rates

the student on four sub-scales: rate and comprehension, vocabulary and paragraph comprehension. The Committee on Diagnostic Tests (1974) states that this test and all its forms have been checked for validity and reliability, at all levels for which the test was intended. Other researchers such as Coates (1968) have cast doubt on the equivalency of four test forms, A, B, C, and D because of the low correlations between scores obtained by a group of college freshmen on the various forms of the tests. Forms A and B of this test are rated roughly comparable by other knowledgeable sources.

The discrepancy in available information about the Diagnostic Reading Test emphasizes the difficulty presented to most test users when two forms of a test are being used to assess gains. Care should be exercised in interpreting student's results if the purpose is to measure gains in reading ability over time.

Writing Tests

As with reading tests, there are a plethora of tests designed to assess students' ability in writing. Most of these tests assess the students' competence in the areas of language usage, sentence structure, grammar and spelling. Current research indicates that a combination of multiple-choice questions and an essay yields reliable and valid scores. The use of multiple-choice questions increases the sample of discrete knowledge that can be measured and reduces some of

the unreliability that may result from subjective judgments that must be made when there is no correct answer to a test question, as arises when there is only one essay used to evaluate a student's ability.

Multiple-choice units are chosen on the assumption that students who recognize problems in the writing of others are likely not to have those problems in their own essays. The actual writing of an essay verifies whether the student really can generate a coherent essay on a given topic within a restricted amount of time. Some critics of the one-shot essay approach point out that few people can write coherently and in an organized fashion the first time they put pen to paper. It is suggested by authorities, such as Scanlon (1980) that instead of testing students using a standardized test and an essay, less time should be allotted for the multiple-choice part of the test, or it should be scrapped completely. Instead students should be presented with several categories of essay topics and should have the opportunity to write a rough draft and then to edit it. The difference between the two versions should then be used as a tool for placement purposes. Time constraints make this ideal suggestion less practical to implement.

The Houghton-Mifflin College English Placement Test (1969) is one which may be used to assess student's writing ability. It is

described as having a four-fold purpose:

1. To measure reliably and quickly a student's ability to use his language effectively,

2. To provide accurate information for placing a student in the kind of composition class best suited to his individual needs and abilities,

3. To indicate specific language areas needing further attention and study,

4. To provide insights bearing on the entire process of written composition, from the selection of an appropriate subject to the final proofreading. (p. 3).

This test has been designed so that it parallels the usual steps in writing a composition. It begins with the selection of a suitable subject, followed by the problem of organization; all to be answered in multiple-choice format. The essay in Part II provides the student with the opportunity to demonstrate how he is able to organize these concepts in a written form of his own.

Study Skills

Two study inventories that are commonly administered are the Survey of Study Habits and Attitudes and the Study Habits Checklist. They can be used to identify those students with behavioral and attitudinal problems, in relation to studying. One would expect that such students would experience difficulty with college-level material.

Study Habits Checklist. This inventory consists of thirty-seven items, organized under the ten categories of previewing, reading, notetaking while reading, remembering, report writing, listening and taking class notes, preparing for examinations, taking examinations, planning time and arranging the physical setting. After reading each item, the student is asked to decide whether it applies to him almost always, more than half of the time, about half of the time, less than half of the time or almost never. He is asked to place one check for each item, in the appropriate column.

This test can be completed very quickly and is easy to score. An item marked almost always in scored four points, more than half of the time, three, about half of the time, two, less than half of the time, one, and almost never, zero points. Thus, the student's raw score can be quickly totaled up. Decile ranks, corresponding to the raw score, are available for grade levels nine through college freshmen. Both the validity and the reliability of this instrument have been established. A copy of the checklist has been included in Appendix A.

Survey of Study Habits and Attitudes. While the study habits checklist is designed to provide a brief overall survey of study habits that are presently in use, the Survey of Study Habits and Attitudes is meant to be far more comprehensive. It consists of

one hundred statements. The student is requested to read each statement and then to decide whether it rarely, sometimes, frequently, generally or almost always applies to him. After the test is corrected, the student is presented with his personal profile of scores, which are measured according to seven scales. These scales are Delay Avoidance, Work Methods, Teacher Approval, Education Acceptance, Study Habits, Study Attitudes and Study Orientation. The raw score for each of these seven scales is translated into a percentile rank and can be plotted on an accompanying graph located on the back of each answer sheet. High scores on this inventory are characteristic of students who get good grades, while low scores tend to be characteristic of those who get low grades or find school work difficult. Thus, the student can identify his own strengths and weaknesses on the various scales, as compared to the average student who has scored at the fiftieth percentile line.

Both the validity and the reliability of the Survey of Study Habits and Attitudes have been firmly established. In addition, both high school and college freshmen norms are available.

The Survey of Study Habits and Attitudes provides valuable information on the two areas that are considered crucial in terms of improving overall study beahvior, that of study habits and study attitudes. Increasingly, psychologists are recognizing the important role that attitudes play, in terms of influencing our behavior, and this is evidenced by the ever-growing body of research in the field of cognitive

behavior modification (Mahoney and Thoresen, 1974; Meichenbaum, 1974). For example, the student may already be implementing reasonable study skills, but may be experiencing a motivational or an attitudinal problem that is affecting his overall achievement. According to this inventory, the attitudinal problem should be evident on the Study Attitudes scale. Since this scale is a composite scale, the problem area can be further broken down into either involving Teacher Approval or Education Acceptance. On the other hand, the student may be very willing to learn and possess favorable attitudes towards school and the educational process, but may lack the necessary skills that will allow him to achieve academically. Again the Survey of Study Habits and Attitudes should point this out. Such a student should score poorly on the composite scale of Study Habits. The problem can then be further broken down into one involving either Delay Avoidance [that is, does the student tend to procrastinate and delay the completion of assignments], or Work Methods [that is, does the student use study skills]. Thus, this inventory is perhaps one of the few that, if taken seriously, can distinguish between the unmotivated, disinterested student as opposed to the interested student who lacks essential how-to-study skills. The seventh scale, that of Study Orientation, is a composite of the previous six scales and provides an overall measure of study habits and attitudes. It can thus be used as a quick comparison of individual differences within groups.

A copy of the survey and its accompanying answer sheet can be found in Appendix A.

Although one would expect that both of these inventories would be capable of discriminating between the stronger and the weaker student, Maxwell (1979) points out that such tests are not foolproof. Because they are essentially attitude tests, most students know what answers are academically desirable even though the student is encouraged to mark each answer as honestly and as thoughtfully as he possible can, and although it is stressed that the value of the survey is in direct proportion to the care with which each statement is answered, one can assume that only the interested, truly motivated student responds to these directives.

On the other hand, these instruments are among the few, mass-administered standardized inventories that can, if answered seriously, provide valuable feedback concerning the student's overall study orientation. Thus, while aware of the general limitations that are inherent in the use of such inventories, most colleges and universities still opt to include them in their overall test battery.

Self-Concept

The self-concept can be loosely defined as those perceptions that one has of himself, in relation to his various abilities and his overall value as a person. In relation to one's global self-

concept (or the sum of all perceptions that one has of himself), there also exists various sub-categories of self-concept (Brookover et al, 1964). For example, one might have a concept of himself as a student, as a son and as an athlete.

The inclusion of a self-concept inventory with a regular battery of reading, writing and study skills tests is recommended. Roueche and Snow (1977) in an extensive review of the literature related to developmental programmes, reported that not one unsuccessful community college programme used a self-concept scale. Their findings generally indicate that colleges emphasizing student self-concept development have greater high-rish student success. This is hardly surprising in view of the fact that the correlation between academic self-concept and school achievement is about +.50 (Bloom, 1971, p. 15). In addition, research on the strong positive relationship that exists between the self-concept and reading achievement has been heavily documented (Lang, 1976).

The diagnosis of the self-concept however proves to be a difficult task. The self-concept is a construct, not a behavior. It produces a great number of behaviors, but no pattern of behaviors that is consistent across all individuals has been found. Tests can only assess behaviors, physical or verbal; mental processes can be assessed only through the behaviors they produce. Precise validity therefore is nearly impossible to establish for any measure of self-concept (Quandt, 1972, p. 11).

Another limitation that is inherent in these tests is the fact that they are self-report measures. Thus, it is impossible to objectively determine both the degree of honesty and of personal insight that the individual has used in evaluating his own perceptions of himself. Individual tests, administered and interpreted by experts might be one way around this, however both the time and cost factors involved frequently make this option an impossible one.

Self-report instruments usually attempt to measure the self-concept through some direct self-acceptance score or indication of how the individual accepts himself as he is now. In addition, many of these tests attempt to measure the discrepancy between the self, as it is presently perceived and the ideal self or the way the individual would like himself to be. Bill's Index of Adjustment and Values (Bill et al, 1951) is a well known example of this type of instrument. It is considered to be a very popular format, as much more information is available on its reliability, validity and norms than on many other self-concept measures (Wiley, 1961).

Typically, the individual is presented with a list of traits or descriptive adjectives that refer to the self. For each trait, he is asked to decide how often it refers to him as he is now, by rating it on either a three or a five-point scale, ranging from almost always to seldom. In addition, he is asked to rate, on the same scale, how often he would like the trait to be characteristic

of him. The discrepancy between the self as it is presently viewed, and the ideal self, is taken as the Now-Ideal discrepancy. The smaller the difference between the now and the ideal scales, the greater the amount of self-satisfaction that can be inferred.

There are several advantages in the use of this type of self-concept measure. First of all, it can be mass administered in a relatively short period of time. Secondly, it can provide the examiner with fairly detailed information concerning the subject's view of himself, and yet it is not considered to be threatening to the individual or to be an invasion of his privacy. Finally, the list of traits or descriptive adjectives can be adapted to suit the needs of specific institutions and age levels. Thus this instrument is very versatile. An example of a self-concept scale based on this model and adapted for use at the college level is presented in Appendix A.

This section has presented a review of the research relating to learning centres, including the personnel involved, the tutoring process itself and the methods used to assess students' skills.

The following conclusions can be drawn from this survey of the literature:

1. The use of trained peer tutors in a learning centre has proven to be both an effective and an inexpensive mechanism for improving the learning skills of the college community.

2. The tutors as well as the tutees appear to benefit from the tutoring experience, in terms of achievement and improved attitude towards school.

3. The current trend is to administer a battery of diagnostic tests to the student in need of help, in order to assess basic skills.

4. Although standardized pre and post diagnostic tests are usually considered the minimum criterion for evaluating any publicly-funded research project, a number of limitations are inherent in their use. For example, in order to clearly detect pre-post differences, the student must work on improving those specific skills which the test measures. Since most programmes in a learning centre are designed by the tutor to suit the personalized and individualized needs of the student in need of help, pre-post diagnostic tests may not necessarily reflect specific gains made.

In the following section the model of the student learning centre developed at Champlain Regional College - St. Lambert will be discussed. This model incorporates several of the features of a learning centre that were outlined in this review of the literature.

THE STUDENT LEARNING CENTRE AT CHAMPLAIN COLLEGE, ST. LAMBERT

Background Information

The St. Lambert-Longueuil Campus of Champlain Regional College, located in St. Lambert, Quebec, is a community college with a population of approximately 2,000 full-time day students. The college offers either a two-year general programme, leading to university studies, or three-year professional programmes.

Our first-year student population, coming from a variety of feeder high schools, forms a rather heterogeneous group. In order to assess their English skills for placement in appropriate English courses, all new students are administered diagnostic tests in the areas of reading and writing. The Diagnostic Reading Test, published by SRA (1966) is used to assess reading ability while the College English Placement Test, published by Houghton-Mifflin (1969) is used to assess the student's writing skill.

For the academic year 1979-1980, the assessment of study skills was included in the battery of diagnostic testing. Study habits were measured by using the Study Habits Checklist, published by SRA, (1967), while study attitudes were measured by the Survey of Study Habits and Attitudes, published by the Psychological Corporation (1965). Students also completed a Self-Concept Scale designed

specifically for Champlain Students (See Appendix A for copies of all of these tests).

The Diagnostic Reading Test provides the student with an overall score out of 100, based on his performance on the three sections of the test. Part I of the test assesses the students' level of comprehension on twenty questions following a timed reading selection; Part II analyzes his vocabulary knowledge based on the number of correct items on the sixty vocabulary questions; Part III provides him with an indication of his ability to comprehend textbook content based on his score on the twenty questions on Part III of the test.

The College English Placement test includes eight-five items on the objective part of the test. Students' scores are then converted to a percentage, for ease of interpretation.

The essay part of the test, as it is organized at Champlain - St. Lambert, is accorded 40 minutes. In this time span the student is asked to write an essay on a topic chosen from the list prepared for the testing day. Instructors mark the essay for placement purposes using the following schema:

Level	Grade Equivalent	Interpretation
1	Below 40%	Enrol in a Composition course for non-native English students
2	40-60%	Definitely enrol in a Composition course
3	60-70%	Enrollment in a Composition course advised but not compulsory
4	80% or better	Take any English course.

The Study Habits Checklist provides the student with a raw score out of a possible score of 148 with a corresponding decile ranking for male or female freshmen. In this report this decile has been converted to a percentile rank.

The SSHA provides the student with a raw score for each of the seven scales, with a corresponding percentile rating normed for college freshmen. The maximum raw score for scales labelled Delay Avoidance, Work Methods, Teacher Approval and Education Acceptance is 50. For the scales labelled Study Habits and Study Attitudes the maximum is 100. Study Orientation, which is a composite scale has a maximum of 200.

The Self-Concept Scale provides two scores: one for Self-Now and a second for Self-Ideal. The individual students responses on the two scales are compared for the difference between Now and Ideal.

The results of these diagnostic tests for May 1979 will be presented in the following chapter.

Each student receives his scores on all tests with an analysis of his strengths and weaknesses in the areas of reading, writing and study skills. Copies of the letters sent to the students with this information are included in Appendix B.

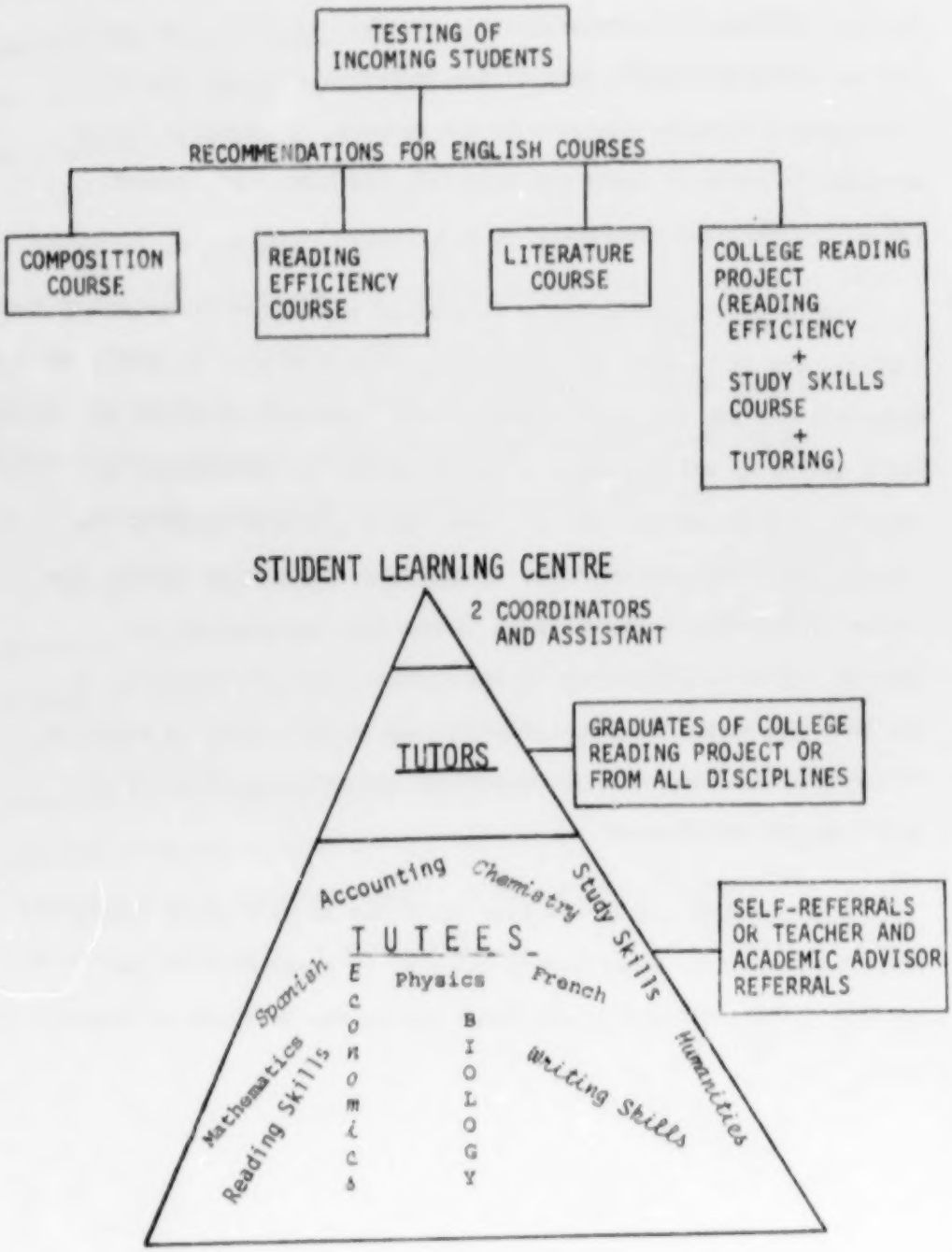
Skills Improvement Options Available at Champlain - St. Lambert

A number of options are then available to the student in need of remediation. If his writing scores and essay evaluation are low, he is required to enrol in a composition course. Those with weak reading skills are encouraged to take a reading efficiency course. Also available is the College Reading Project, a package which offers both a reading efficiency and a study skills course, combined with a practicum in tutoring in the high schools. All of the above are credit courses.

In addition, any student can request tutoring in the student learning centre. The request may be made for help in a specific subject area, or for basic skills improvement in reading, writing and study skills.

An outline of the skills improvement options available at Champlain - St. Lambert is presented in Figure 1.

Figure 1. Skills Improvement Options at Champlain Regional College



Student Learning Centre

Physical Resources

The student learning centre has been operational at Champlain Regional College, St. Lambert, since the fall of 1977. The centre started out with a small budget, few resources and much personal investment of time on the part of the authors. Gradually it has expanded in terms of space and material, the number of students served and services offered.

The centre is conveniently located on the second floor of the library, and it is open for student use from 8:30 a.m. to 9:00 p.m. Materials include the usual array of texts designed to build in basic skills as well as those directed to skills improvement in specific subject areas. All of these texts are catalogued by the library staff and, while stored in the student learning centre, are listed in the regular card index. Since they are checked out through the circulation desk of the library, loss of materials is minimal, but access is easy. Also housed in this room, in separate filing cabinets, are relevant exercises and articles directed at both faculty and students.

A colour code system has been developed to help users locate specific resources in the centre quickly. A break-down of the general skill's categories and their coding may be found in Appendix C.

Personnel

A full time clerical assistant oversees the daily operation of the student learning centre. The authors receive partial release time from teaching in order to recruit, to train and to supervise the tutors, and to make administrative decisions about the centre. The centre is run by students: the student tutors, for students: the tutees.

Tutors: recruitment. Each semester tutors are recruited from the campus population. A regular course credit is given for tutoring. The course is entitled: "Academic Tutoring in Theory and in Practice: To Teach is to Learn." It has been offered since September, 1978, as an institutional course open to all students, regardless of their programme of study.

As part of the course requirements, tutors are expected to attend an intensive eight-hour training session; to complete a minimum of twenty-five hours of tutoring; to meet as a group weekly for one hour; and to meet individually with one of the supervisors, for approximately thirty minutes each week. Tutors are also expected to complete a final report for each student tutored for more than five hours. A copy of the course policy statement is included in Appendix D.

Recruitment of new tutors had traditionally been done through a letter describing the benefits of the tutoring course. An even more effective approach was recently initiated by the tutors themselves. Because they were so enthusiastic about their experiences, they volunteered to visit several classes to talk about the course to their peers. As a result, for the January 1980 semester, the largest numbers of students, to date, applied for the course. Students recruited came primarily from the sciences and from mathematics. Other tutors were graduates of the College Reading Project. Since they have already tutored a high school student, plus reaped the benefits of the reading efficiency and study skills courses, they are considered to be excellent candidates for tutoring in the basic skills areas.

Tutors: training. Our tutors receive their preliminary training during an intensive eight-hour session, held before regular classes begin. A text, entitled Addendum: A Manual for Tutors, has been developed for the course and is used as a basis for the training session.

A typical agenda for the training day is included on the following page.

Figure 2. Agenda: Tutor Training Session

9:00 - 9:30 Welcome to tutors (coffee and doughnuts served)

9:30 - 10:00 I Introduction to Student Learning Centre

- A Basic philosophy
- B Organization
  - i. personnel
  - ii. forms - request for tutoring
    - sessional log sheets
    - weekly contract forms

10:00 - 12:30 II Designing Individualized Programmes

- A Interpreting reading test results
  Materials and exercises to improve reading skills
- B Interpreting writing test results
  Materials and exercises to improve writing skills
- C Interpreting results of study habits and study attitudes tests
  Introducing study skills
  Implementing study skills in the content areas
  Use of self-management procedures to implement study skills

12:30 - 1:30 Lunch

1:30 - 2:45 Interpreting the self-concept inventory
Improving the self-concept
- i. use of behavioral psychology in tutoring
- ii. teaching students to talk positively to themselves (videotape on self-instructions)

2:45 - 3:00 Coffee break

3:00 - 4:00 III Implementing it all: Videotape on "Tips for Tutoring"

- A Situation I: An introductory session (subject area: Biology)
  Tips:
  - i. create a friendly atmosphere
  - ii. discuss diagnostic test results
  - iii. discuss philosophy of student learning centre
- B Situation II: A sample session in Mathematics
  Tips:
  - i. Explore organization of the textbook
  - ii. review test results
  - iii. develop problem-solving strategies
- C Situation III: How the student was won (area: basic skills development)
  Tips: Characteristics of the good student
  - i. well organized study environment
  - ii. use of study skills
  - iii. positive attitude towards school

D Situation IV: Do's and don'ts of tutoring
(subject area: Physics)

Negative points:
i. physical distance
ii. lack of feedback
iii. no encouragement from tutor
iv. punishing remarks

Positive points:
i. use of a concrete model
ii. eye contact
iii. smooth style of interacting
iv. review of main points
v. plan for next session

4:00 - 5:00 IV Tutor Responsibilities

A Weekly meetings with supervisor
B Pre and post-testing of tutees
C Final report

5:00 - 5:15 V First Assignment

By referring to the agenda, it may be seen that the day begins with an explanation of the overall functioning of the student learning centre. Students are introduced to the materials that are available in the various subject areas, including textbooks, exercises and articles. Also discussed are the forms that the tutor is expected to use in his tutoring. These include the tutor's sessional log sheet and the tutee's weekly contract form as well as the final report for each tutee.

The sessional log sheet, prepared by the tutor before he meets with his tutee, outlines the activities planned for a given session. The tutor later fills in the tutee's performance on each task. The weekly contract form is simply a list of the assignments that the tutee should complete between tutoring sessions. At the end of each tutoring programme, the tutor is also required to fill in a final report which synthesizes the information on the sessional log plans and provides an overall assessment of the tutee's performance. (A copy of a sessional log sheet, a weekly contract form and a completed final report is included in Appendix E).

In the second part of the tutor training session, the tutor is introduced to the diagnostic tests which have been administered to all incoming students. He is shown how to interpret these test results in order to assess a student's relative strengths and weaknesses in the basic skill areas of reading, writing and studying.

This is considered a fundamental aspect of the tutoring process, as it is our philosophy that a mastery of the basic skills is required for successful performance in any subject area. The tutor can use these test results as a basis for designing an individualized programme for each tutee, regardless of the subject being tutored.

A hypothetical student's test results are used as an illustrative model. For example, a tutee's reading test results may be used to indicate that this individual needs to improve both speed and comprehension.

The tutor is directed to the appropriate materials, including textbook references and exercises, that would aid development in these areas. Similarly, tutors are given sample procedures to follow if writing skills need to be improved.

Study skills are either non-existent, or used very erratically by many students seeking help. If the diagnostic tests indicate that this is where the problem lies, the tutors are taught how to devise a programme directed at improving study habits. In this two-fold approach, the tutor is shown how to introduce the tutee to basic study skills such as how to preview textbook material, how to read for main ideas and how to take efficient notes. Test-taking methods are also presented. Then, the tutor's task becomes one of convincing the tutee to implement these skills. Using a number of simple techniques based upon the theory of behaviour modification,

the tutor can show the tutee how to organize his time, using schedules and daily lists of assignments. He can also encourage his tutee to graph daily study time, and to reinforce himself for attainment of his daily goal.

Throughout the training session, it is stressed that the tutor should attempt to tie in the tutee's weakness in a basic skill area with the difficulty that he may be experiencing in a specific subject area. For instance, a student with poor reading skills who has failed a biology test is likely to experience great difficulty when reading through and attempting to understand a chapter in his textbook. Thus, the tutor not only would discuss the most effective way of approaching a textbook chapter, but would directly relate this procedure to the student's biology text, by having him practice these skills on this text.

The tutee's overall self-concept and his attitude towards school are also dealt with during the training session. Reference is made to the Self-Concept Scale and what it measures. Students are urged to compare their tutee's scores on the two scales, the Now and the Ideal, and to be aware of the fact that a large discrepancy in scores on these two scales could indicate a problem with the self-concept.

The role that the tutor can play, in terms of helping the tutee to set realistic goals and then reinforcing his tutee's progress towards these goals, can do much to enhance the self-concept. In

addition, the tutor can help to change negative attitudes by encouraging the tutee to talk to himself in a more positive way, which can result in an improved attitude towards his courses and towards school in general.

For the tutor, the developmental process is therefore twofold: he must attempt to develop basic skills in his tutee as well as provide a rewarding learning environment in order to allow him to experience success.

The importance of developing effective interpersonal communication between tutor and tutee is stressed during the third part of the training session. During the fall semester, 1979, the class of tutors produced a videotape entitled Tips for Tutoring. This videotape, which has been incorporated into the training session on a regular basis, illustrates various hypothetical situations that might arise during tutoring. These situations include an introductory meeting between tutor and tutee, a tutoring session in Mathematics and one in Physics, and an example of training a reluctant student in the use of basic skills. This twenty-minute videotape is meant to serve as a teaching tool, and therefore at the end of each of the four sample situations, the important points that have been illustrated are reviewed. The importance of maintaining eye contact with the tutee, of constantly seeking feedback and of working towards common objectives are among the more important techniques mentioned. A complete breakdown of the contents of

this videotape can be found on the tutor training agenda in Figure 2.

At the end of the training session, the tutors are given their first assignment. They are required to design an individualized programme for each of three hypothetical tutees. The tutors are encouraged to use the information covered during the training session as well as the material presented in Addendum: A Manual for Tutors. They are given two weeks to complete this assignment and are provided with appropriate feedback before they actually begin to tutor other college students. A copy of this assignment is included in Appendix F.

Tutees: referrals. Referrals for tutoring come from two main sources. The most frequently used method is the self-referral. Any student can come to the learning centre and fill in a form on which he specifies the particular subject area in which he wishes to be tutored. A sample Request for Tutoring form is included in Appendix G. Some excerpts from referral forms received in the past are included below:

Calculus I: "I need to be tutored in Cal I. I know this because from day to day in Cal, I get lost more & more."

Calculus II: "I feel that I do not grasp the concepts as quickly as the teacher goes over them & I would like help to learn these concepts at my own pace."

Chemistry 111: "Chem 111 is the area I wish to be tutored in. I am very confused. I don't understand a lot of the things being taught in class. It all seems so disorganized."

Chemistry 111: "I need help in Chem 111. If I don't pass this course with a good mark, then I don't go to university next year."

Second language student: "I need help in writing and study skills. When the teacher want me write some thing in the class, it can take me few hours to write only half page. I want myself can write freely."

Second language student: "I am a foreign student and this is my first year in an English college. I have difficulties in reading, pronouncing and writing Enlish. My first language is Vietnamese, 2nd - French, 3rd - English.

Accounting I: "I have problems understanding English. So, if I have to read the instructions for an exercise, I don't quite understand fully - so when I go over the exercise that's where I make my mistake."

Physics 301: "I would like to have a tutor who would straighten me out from scratch and review every main area.

French: "I need someone who can talk French to me so that I can improve in oral French. This person must be strong-willed and not start speaking English to moi."

Research papers: "I would like to be tutored in doing term papers. I can't really put the proper stuff down on paper. I can't really express how tough ! find term papers - but I do have problems doing them. "

The second method for referring students is used by either faculty or academic advisors. The referring individual indicates whether or not he is willing to be involved in the planning of the tutoring sessions, and whether or not the student is being referred for tutoring outside of regular classroom time. A sample teacher and academic advisor referral form is included in Appendix G.

Students may refer themselves for tutoring at any point during the semester. In January 1980, 35 requests for tutoring had been received by the end of the second week of classes. Students were still requesting help in the last weeks of the semester as well.

The student learning centre assistant matches tutors and tutees, according to communality of available time and needs. Efforts are made to arrange a first meeting between tutor and tutee within one week of application for tutoring. Requests are filled as long as there are tutors available.

Tutors: supervision. Tutors meet, as a group, for one hour a week to discuss mutual problems. Individually each tutor meets with one of the instructors for a maximum of thirty minutes per week to discuss progress in the tutoring situation, problem areas and the individual tutee's needs. Each tutor works with an average of three tutees per semester. In this way, easily ten percent of the entire population of Champlain - St. Lambert can be helped each semester.

Tutor and tutee evaluation procedures. In order to present the co-ordinators with feedback about the centre, both tutors and tutees are asked to complete evaluation forms. At the end of the semester, the tutors provide lengthy written information concerning the effectiveness of the training sessions and about the weekly supervisory sessions with the instructors. They also provide a critique of the materials available in the centre, making suggestions for improvement where necessary. Their responses are carefully considered in planning for future semesters.

Tutees do not strictly rate their tutors, but they are asked, at the end of their programmes, to fill out a brief questionnaire. In this evaluation form, they assess their tutoring experience by responding to questions such as the following:

> "What was the most important thing you learned during the time you were being tutored?"
>
> "Do you feel that your attitude towards yourself as a student or towards school in general has changed, as a result of the tutoring?"
>
> "Would you come back to be tutored again?"
>
> "Would you recommend tutoring through the student learning centre to your friends?"

The tutor's final mark is not influenced by his tutees' responses. However, the completed forms are made available to the tutors, for purposes of their own self-improvement. The instructors attempt to use any precise information which is offered on these forms in the selection of the following semester's tutors.

Copies of both evaluation forms can be found in Appendix H.

In the following section, a description of the methods used to evaluate the effectiveness of the student learning centre at Champlain Regional College - St. Lambert will be presented.

EVALUATION OF A LEARNING CENTRE

The evaluation of the learning centre at Champlain Regional College - St. Lambert was undertaken by the two authors for the year 1979-80. The evaluation procedures follow the suggestions outlined in the literature on learning centres. These include the assessment of students, both pre and post-tutoring, using a battery of diagnostic tests and the comparison of the student's scores to those of control groups. Based upon a review of the research, it is hypothesized that students who receive individualized tutoring through the student learning centre for at least seven hours will show greater improvement in reading scores, writing scores, study habits and attitudes and self-concept scores, as compared to students in control groups, on campus.

Method

Procedure. In May, 1979, all incoming students to Champlain Regional College (N = 887) were administered the following battery of diagnostic tests:

1. The Diagnostic Reading Test, Form A, published by SRA (1966) was used to assess reading skills.
2. The College English Placement Test, published by Houghton-Mifflin (1969) was used to measure writing skills.
3. A writing sample, reated by an English instructor, was used to measure writing ability.

4. The Study Habits Checklist, published by SRA (1967) was used to measure study habits.
5. The Survey of Study Habits and Attitudes published by the Psychological Corporation (1965) was used to measure study habits and attitudes.
6. The Self-Concept Scale, adapted for use at Champlain College - St. Lambert, was used to measure overall self-concept.

From the group of students who had taken the battery of tests in May, 1979, subjects were randomly selected in both the fall 1979 and winter 1980 semesters, for four control groups. These four control groups were: 1) students enrolled in a composition course; 2) students enrolled in an English literature course; 3) students enrolled in a reading efficiency course; and 4) students enrolled in the College Reading Programme, which involves both a course in reading efficiency and one in study skills, combined with tutoring in a local high school. The number of students contained in each group for the two semesters is presented in Table 1.

Table 1

Number of Students in the Four Control Groups for the Fall 1979 and Winter 1980 Semesters

	Semester	
Control Group	Fall	Winter
1	20	18
2	28	21
3	14	9
4	17	54

Students who received tutoring in the learning centre were administered the battery of post-tests by their tutors, at the end of their tutoring programme. Only those students who received seven or more hours of tutoring met the criteria for the experimental group and were thus required to write the post-tests. In all cases, except for the Diagnostic Reading Test, the same form of the tests was used. Form B of the Diagnostic Reading Test was given for the post-testing session. This procedure was followed in both the fall, 1979, and winter, 1980, semesters.

Students who were randomly selected for the control groups received a letter from the registrar's office, inviting them to attend the post-testing session. For those in the fall 1979 control group, this session was held on January 16, 1980; for those in the winter 1980 control groups, this session was held on May 10, 1980. Students were administered the same battery of tests as those in the experimental group. In co-operation with the registrar's office, students who attended the post-testing session were offered the opportunity to register on the first day of registration for the following semester.

Copies of the letters sent to these students are included in Appendix I.

Of those tutored in the student learning centre, twenty-six students qualified for the experimental group in the fall semester, 1979, and thirty-six in the winter semester, 1980.

Procedure. The effectiveness of the student learning centre was evaluated by comparing the experimental group who received tutoring with four control groups, on campus. The experimental group was compared to the four control groups on the basis of pre- or post-test differences on the following tests: the Diagnostic Reading Test, the College English Placement Test, a writing sample from the student, the Study Habits Checklist, the Survey of Study Habits and Attitudes and the Self-Concept Scale. An overview of the experimental design used to evaluate the student learning centre at Champlain College - St. Lambert, is presented in Table 2.

Table 2

Overview of the Experimental Design used to Evaluate the Student Learning Centre at Champlain-St.Lambert for 1979-1980

GROUP	n	TESTING PRE & POST	TREATMENT
Experimental A	62	all tests	Individualized tutoring
Control 1	38	all tests	Regular English course
2	49	all tests	Regular composition course
3	23	all tests	Reading Efficiency course
4	71	all tests	College Reading Project

NOTE: The following tests were administered:
Diagnostic Reading Test (Form A pre; Form B post);
the College English Placement Test; a writing sample;
the Study Habits Checklist; the Survey of Study Habits and
Attitudes; a Self-Concept Scale

Of those tutored in the student learning centre, twenty-six students qualified for the experimental group in the fall semester, 1979, and thirty-six in the winter semester, 1980.

Procedure. The effectiveness of the student learning centre was evaluated by comparing the experimental group who received tutoring with four control groups, on campus. The experimental group was compared to the four control groups on the basis of pre- or post-test differences on the following tests: the Diagnostic Reading Test, the College English Placement Test, a writing sample from the student, the Study Habits Checklist, the Survey of Study Habits and Attitudes and the Self-Concept Scale. An overview of the experimental design used to evaluate the student learning centre at Champlain College - St. Lambert, is presented in Table 2.

Table 2

Overview of the Experimental Design used to Evaluate the Student Learning Centre at Champlain-St.Lambert for 1979-1980

GROUP	n	TESTING PRE & POST	TREATMENT
Experimental A	62	all tests	Individualized tutoring
Control 1	38	all tests	Regular English course
2	49	all tests	Regular composition course
3	23	all tests	Reading Efficiency course
4	71	all tests	College Reading Project

NOTE: The following tests were administered:

Diagnostic Reading Test (Form A pre; Form B post);

the College English Placement Test; a writing sample;

the Study Habits Checklist; the Survey of Study Habits and

Attitudes; a Self-Concept Scale

The following table represents a breakdown by gender of subjects in the experimental group, according to subject tutored, and the four control groups, for the fall and winter semesters.

Table 3
Breakdown by Gender of Subjects in Experimental Group, According to Subject Tutored, and Control Groups, Fall and Winter Semesters

GROUP	SEX	FALL SEMESTER n	WINTER SEMESTER n
1 (Composition)	Males	12	8
	Females	16	13
2 (Literature)	Males	13	4
	Females	7	14
3 (Reading Efficiency)	Males	8	6
	Females	6	3
4 (Reading Programme)	Males	9	30
	Females	8	24
5 (Tutees) Literature	Males	4	7
	Females	4	4
Mathematics	Males	4	3
	Females	7	11
Science	Males	4	3
	Females	3	8

Statistics. Elementary statistics were done for the population. Analysis of Variance and Pearson Correlations were done for the experimental and control groups. Post hoc tests were done using Newman-Keuls, Tukey H.S.D., and t-tests with appropriate error terms. The results of these tests are presented in the following section on results.

The results from these tests were broken down by gender. Table 5 presents the results for males on the tests administered in May, 1979

Table 5
Mean Score, Mean Percentile Rank, Where Applicable, and Standard Deviation, for Males Tested in May 1979

Test	n	$\bar{X}$	Percentile Rank	S.D.
D.R.T. /100	392	65.20	–	13.80
C.E.P.T. /100	357	49.19	–	14.14
Essay 1 - 4	378	2.83	–	0.89
S.H.C. /148	397	95.09	44	18.63
SSHA	397			
SSHA 1 /50		20.61	33	9.20
SSHA 2 /50		27.11	55	8.77
SSHA 3 /100		46.27	45	16.10
SSHA 4 /50		25.75	20	8.51
SSHA 5 /50		25.32	25	7.42
SSHA 6 /100		50.77	20	14.08
SSHA 7 /200		97.68	28	27.03
Self-Concept Scale	396			
Self Now		94.57	–	11.56
Self Ideal		111.44	–	8.31
Self Difference		16.87	–	11.34

RESULTS

Elementary Statistics on the Population

887 students sat for all or part of the battery of tests administered to all incoming students in May, 1979. The results from these tests are presented by population, by gender and by language group, in the tables that follow.

Table 4 presents the data compiled from the population on all tests in the battery.

Table 4
Mean Score, Mean Percentile Rank, Where Applicable, and Standard Deviation, for Students Tested in May, 1979

Test	n	$\bar{X}$	Percentile Rank	S.D.
Diagnostic Reading Test (D.R.T.) Form A /100	819	63.72	–	13.96
College English Placement Test (C.E.P.T.) /100	795	49.96	–	15.11
Essay 1 - 4	834	2.92	–	0.89
Study Habits Checklist (SHC) /148	887	98.2	31.0	19.34
Survey of Study Habits & Attitudes (SSHA)	887			
Delay Avoidance (SSHA 1 /50)		22.80	44	9.97
Work Methods (SSHA 2 /50)		27.76	58	4.69
Study Habits (SSHA 3 /100)		50.56	50	29.61
Teacher Approval (SSHA 4 /50)		27.09	25	8.63
Education Acceptance (SSHA 5 /50)		26.67	28	7.63
Study Attitudes (SSHA 5 /100)		53.42	25	14.43
Study Orientation (SSHA 7 /200)		103.46	35	11.23
Self-Concept Scale	887			
Self Now		95.19	–	11.23
Self Ideal		111.94	–	13.08
Self Difference		16.32	–	11.24

The results from these tests were broken down by gender. Table 5 presents the results for males on the tests administered in May, 1979

Table 5
Mean Score, Mean Percentile Rank, Where Applicable, and Standard Deviation, for Males Tested in May 1979

Test	n	$\bar{X}$	Percentile Rank	S.D.
D.R.T. /100	392	65.20	–	13.80
C.E.P.T. /100	357	49.19	–	14.14
Essay 1 - 4	378	2.83	–	0.89
S.H.C. /148	397	95.09	44	18.63
SSHA	397			
SSHA 1 /50		20.61	33	9.20
SSHA 2 /50		27.11	55	8.77
SSHA 3 /100		46.27	45	16.10
SSHA 4 /50		25.75	20	8.51
SSHA 5 /50		25.32	25	7.42
SSHA 6 /100		50.77	20	14.08
SSHA 7 /200		97.68	28	27.03
Self-Concept Scale	396			
Self Now		94.57	–	11.56
Self Ideal		111.44	–	8.31
Self Difference		16.87	–	11.34

Table 6 presents the results for the females on the tests administered in May, 1979.

Table 6
Mean Score, Mean Percentile Rank, Where Applicable, and Standard Deviation, for Females Tested in May, 1979

Test	n	$\bar{X}$	Percentile Rank	S.D.
D.R.T. /100	425	62.43	–	14.00
C.E.P.T. /100	438	50.60	–	15.84
Essay 1 - 4	454	2.99	–	0.89
S.H.C. /148	488	101.00	40	18.79
SSHA	488			
SSHA 1 /50		24.56	47	10.25
SSHA 2 /50		25.94	54	3.99
SSHA 3 /100		69.70	85	6.32
SSHA 4 /50		28.14	25	8.57
SSHA 5 /50		27.74	33	7.63
SSHA 6 /100		55.52	27	14.36
SSHA 7 /200		108.06	40	26.95
Self Concept Scale	488			
Self Now		95.70	–	10.94
Self Ideal		111.58	–	10.24
Self Difference		15.87	–	11.18

A one-way analysis of variance of all the variables listed in both Tables 5 and 6 was done to determine sex differences. Significant differences were found on the following variables:

Study Habits Raw	$(F(1,883) = 22.743, p<.01$
Diagnostic Reading Test	$(F(1,815) = 8.110, p<.01$
Essay	$(F(1,830) = 6.519, p<.01$
S.S.H.A. 1 (Delay Avoidance)	$(F(1,883) = 35.635, p<.01$
S.S.H.A. 4 (Teacher Approval)	$(F(1,881) = 17.175, p<.01$
S.S.H.A. 5 (Education Acceptance)	$(F(1,881) = 22.608, p<.01$
S.S.H.A. 6 (Study Attitude)	$(F(1,881) = 24.345, p<.01$
S.S.H.A. 7 (Study Orientation)	$(F(1,881) = 32.240, p<.01$

Table 7

Mean Score and Standard Deviation on the D.R.T., C.E.P.T. Essay and Self Concept Scale by Language Spoken at Home

LANG-UAGE GROUP	DIAGNOSTIC READING TEST			C.E.P.T.			ESSAY			SELF CONCEPT SCALE DIFFERENCE								
										NOW			IDEAL					
	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.
1.English	432	67.40	12.66	444	52.93	14.49	452	3.13	0.83	471	95.38	10.37	471	111.84	8.20	471	16.46	9.99
2.French	83	56.33	13.65	66	44.15	15.75	77	2.56	1.02	89	92.93	9.99	89	108.69	13.23	89	15.76	11.87
3.Italian	27	58.15	11.98	26	41.04	13.02	26	2.54	0.76	29	93.89	10.95	29	110.44	13.83	29	16.55	13.50
4.Chinese	7	49.14	12.02	5	40.60	10.69	6	2.00	0.63	8	83.50	13.23	8	103.12	9.55	8	19.62	13.44
5.Greek	6	59.17	13.96	6	38.33	19.89	6	3.0	0.89	6	92.33	16.5[illegible]	6	110.00	13.43	6	17.66	15.40
6.Other	28	53.93	17.63	26	42.42	15.48	28	2.57	0.88	28	90.75	10.67	28	108.17	12.00	28	17.43	12.22
7.English & French	105	63.13	14.82	104	50.04	14.54	111	2.74	0.86	114	97.57	14.43	114	113.62	9.61	114	16.04	15.44
8.Combination & English	107	62.13	12.75	95	46.72	15.04	103	2.77	0.90	113	96.45	10.33	113	111.94	7.07	113	15.4[illegible]	10.27
9.Combination - English	22	56.59	13.69	23	46.35	13.96	23	2.65	0.90	26	94.15	13.40	25	111.88	9.87	26	17.73	7.95

Table 8
Mean Score and Standard Deviation on the Study Habits Checklist and Composite Scales (3, 6 & 7) of the S.S.H.A. by Language Spoken at Home

LANGUAGE GROUP	STUDY HABITS CHECKLIST			SURVEY OF STUDY HABITS AND ATTITUDES (S.S.H.A.)										
				S.S.H.A. 3			S.S.H.A. 6			S.S.H.A. 7				
	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.	n	$\bar{X}$	S.D.
1.English	471	97.81	18.77	471	41.23	28.81	471	50.22	4.73	470	54.14	13.85	470	103.37	26.93
2.French	89	95.96	16.07	89	37.75	27.41	89	50.6	4.70	88	51.45	12.20	88	101.09	22.15
3.Italian	29	94.96	19.06	29	39.65	30.76	29	51.55	15.65	29	55.22	13.35	29	106.35	26.64
4.Chinese	8	90.50	9.89	8	23.75	16.85	8	41.85	12.14	8	44.40	9.46	8	85.96	19.74
5.Greek	6	104.	23.38	6	41.66	41.66	6	57.74	25.21	6	52.02	29.49	6	109.29	54.19
6.Other	28	93	16.63	28	37.50	27.16	28	46.47	15.45	28	54.10	15.05	28	100.17	27.39
7.English & French	115	101.22	19.76	115	46.95	30.89	115	53.58	16.75	115	54.20	17.20	115	107.34	30.84
8.Combination & English	113	101.41	21.65	113	45.66	31.36	113	51.99	17.20	113	51.27	13.87	113	102.86	28.24
9.Combination - English	26	102.69	15.74	26	45.76	26.25	26	48.78	14.68	26	52.30	16.99	26	100.68	29.07

A one-way analysis of variance was performed on the variables listed in Tables 7 and 8 to determine language differences. Nine language categories were represented by language or languages spoken at home. There were:

1. English
2. French
3. Italian
4. Chinese
5. Greek
6. Other (not listed)
7. English and French
8. A combination and English
9. A comb nation minus English

Significant results were as follows:

Self-Concept Now ($F(8,875) = 3.101$, $p<.01$). Post-hoc Tukey H.S.D. tests showed differences (with $p \leq .05$) between Chinese speaking students and students who spoke English and French and those who spoke English combined with another language at home.

Self-Concept Ideal ($F(8,875) = 3.172$, $p<.01$). Post-hoc Tukey H.S.D. tests showed differences (with $p \leq .05$) between those who spoke French at home and those who spoke a combination of English and French at home.

Diagnostic Reading Test ($F(8,808) = 12.029$, $p<.01$). Post-hoc Tukey H.S.D. tests showed differences (with $p \leq .05$) between those who spoke English at home and those in all language groups except those who spoke Greek at home and those who spoke a combination of English and French. Those who spoke a combination of English and French at home showed significant differences (with $p \leq .05$) from those who spoke any language other than those on the list, and from those who spoke only French at home.

The College English Placement Test ($F(8,786) = 7.105$, $p<.01$). Post-hoc Tukey H.S.D. tests showed differences (with $p\leq.05$) between those who spoke English at home and those in language category French, Italian, Other and Combination and English.

The Essay Test ($F(8,823) = 8.382$, $p<.01$. Post-hoc Tukey H.S.D. tests showed differences (with $p\leq.05$) between those who spoke English at home and all groups except those who spoke Greek at home and those who spoke a combination of languages without English.

S.S.H.A. 4 (Teacher Approval) ($F(8,874) = 2.220$, $p<.01$). Post-hoc Tukey H.S.D. tests showed differences (with $p\leq.05$) between those who spoke English at home and those who spoke a combination of languages and English at home.

Correlations were performed on the variables to see if the tests were significantly correlated. Table 9 shows those tests which have been significantly correlated as the $p<.05$ level.

TABLE 9
Variables which have been significantly correlated
at the $p<.05$ Level of Significance

	D.R.T.	C.E.P.T.	ESSAY	S.H.C.	%ile
D.R.T.	*	*	*		
C.E.P.T.	*	*	*		
ESSAY	*	*	*		
S.H.C. (raw)	*	*	*		
S.H. (decile)	*	*	*		
S.S.H.A. 1				*	*
2					
3	*	*	*	*	*
4	*	*	*	*	*
5	*	*	*	*	*
6	*	*	*	*	*
7	*	*	*	*	*
SELF-CONCEPT - NOW	*	*	*	*	*
IDEAL	*	*	*		*
DIFF.				*	*

* $p<.05$

Results of Experimental Manipulation

178 subjects were included in the experimental and control groups in Fall and Winter semesters. The experimental and control groups were compared to the population. Sampling showed that the distribution of subjects in the experimental and control groups was similar to the population for language and gender but not for programme.

Analysis of Variance Results

A 5 x 2 x 2 mixed design analysis of variance, on group by gender by trial (pre/post), was performed for each semester separately. Semesters were not combined for the analysis of variance because of considerations of possible time differences. Post-hoc tests were performed using the Newman-Keuls with $p<.05$ level of criterion.

It was found that for most of the dependent variables there was a main effect of gender, with the females scoring higher than the males. There was also an overall group improvement from pre to post testing. This was not, however, the primary concern of the experimental manipulation. The significant trial X group; trial X gender; and trial X group X gender interactions were focused on. They are reported below. Tables of means for these significant interactions can be found in Appendices J. and K. Appendix J includes Tables of means for the experimental and control groups. Table K includes tables of means for the experimental groups only.

There are no trends between semesters, although the greatest instances of significant differences occur in the fall semester. Each variable that produced a significant difference will be presented separately. It will be discussed for the semester in which interaction produced significant differences.

Study habits checklist, raw score and decile rank. For the first semester subjects on both the raw score and decile rank rating respectively there was a significant trial by group interaction ($F(4,95) = 11.50$, $p<.01$) ($F(4,95) = 13.73$, $p<.01$) Post-hoc tests showed at post-testing, subjects in the college reading programme scored significantly higher than those in all other groups. Those in the reading efficiency course, the college reading programme and tutees scored significantly higher at post-testing than at pre-testing. Those in composition course scored significantly lower than those in the literature course at post-testing. The table of means for this interaction on the Study Habits, raw score may be found in Appendix J, Table 10, and for the Study Habits, decile ranking in Table 12.

For the second semester subjects on the Study Habits, raw score the results are similar. There was a significant trial by group interaction ($F(4,128) = 3.41$, $p<.01$). Post-hoc tests showed that those in the college reading programme and tutees scored significantly higher at post-testing. Those in the literature course scored

The following codes will be used to represent those enrolled in the experimental group and the four control groups:

Group & code	Course Equivalent
1 (control) comp.	English compostion course
2 (control) lit.	English literature course
3 (control) Rd. Eff.	Reading efficiency course
4 (control) Coll. Rd. Prog.	College Reading Programme English & Psychology
5 (experimental) tutees	Those tutored in the student learning centre

In this study, there were fifteen possible measures on which significant differences between groups or genders could have been found. Post-hoc tests showed that at pre-testing there were few group differences that were significant on any of these measures. There were significant differences at post-testing on the following measures:

Study Habits checklist - raw score
Study Habits checklist - decile rank
Essay
Survey of Study Habits and Attitudes all sub-scales:

Delay Avoidance
Work Methods
Study Habits
Teacher Approval
Education Acceptance
Study Attitudes
Study Orientation

There are no trends between semesters, although the greatest instances of significant differences occur in the fall semester. Each variable that produced a significant difference will be presented separately. It will be discussed for the semester in which interaction produced significant differences.

Study habits checklist, raw score and decile rank. For the first semester subjects on both the raw score and decile rank rating respectively there was a significant trial by group interaction ($F(4,95) = 11.50$, $p<.01$) ($F(4,95) = 13.73$, $p<.01$) Post-hoc tests showed at post-testing, subjects in the college reading programme scored significantly higher than those in all other groups. Those in the reading efficiency course, the college reading programme and tutees scored significantly higher at post-testing than at pre-testing. Those in composition course scored significantly lower than those in the literature course at post-testing. The table of means for this interaction on the Study Habits, raw score may be found in Appendix J, Table 10, and for the Study Habits, decile ranking in Table 12.

For the second semester subjects on the Study Habits, raw score the results are similar. There was a significant trial by group interaction ($F(4,128) = 3.41$, $p<.01$). Post-hoc tests showed that those in the college reading programme and tutees scored significantly higher at post-testing. Those in the literature course scored

significantly higher both pre and post-testing than those in the reading efficiency course and in the college reading programme. The table of means for this interaction is Table 11.

For these same subjects on the Study Habits checklist decile ranking there was a significant trial by group interaction ($F(4,128) = 2.83$, $p<.05$). At post-testing post-hoc tests showed that read. eff. students scored lower than lit. and coll. rd. prog. students, and only those in lit. and coll. rd. prog. scored significantly higher at post-testing. The table of means for this interaction may be found in Table 13.

Essay. For the first semester subjects, for the Essay variable, there was a marginally significant trial by group interaction ($F(4,95) = 2.21$, $p<.07$). Post-hoc tests showed that at pre and at post testing those in rd. eff. course scored significantly higher than those in all other groups. Those in comp. scored lower than all other groups. Only those in lit. and coll. rd. prog. earned significantly higher scores at post-testing than at pre-testing. The table of means for this interaction may be found in Table 14.

Survey of study habits and attitudes, delay avoidance. For the subjects fall semester, on this score, there was a significant trial by group interaction ($F(4,95) = 8.04$, $p<.01$) and a marginally significant trial by group by gender interaction ($F(4,95) = 2.27$, $p<.06$). The following describes what was revealed by post-hoc tests.

PRE-TESTING

comp. females lit. females tutees female		comp. males coll. rd.prog.females
lit. females	scored significantly higher than	rd.eff.males & females lit. males coll.rd.prog. males tutee males.

POST-TESTING

coll.rd.prog. males & females lit. females	scored significantly higher than	comp. males & females lit. males tutees male

Those in the college reading programme made significant gains pre to post-testing. The table of means for this interaction may be found in Table 15.

Survey of study habits and attitudes, work methods. For the first semester subjects on this scale there was a significant trial by gender interaction ($F(1,95) = 6.60$, $p<.01$); a significant trial by group interaction ($F(4,95) = 12.65$, $p<.01$); and a significant trial by gender by group interaction ($F(4,95) = 12.65$, $p<.05$). The following illustrates what was revealed by post-hoc tests.

PRE-TESTING

lit. males & females rd.eff. males comp. females	scored significantly higher than	coll.rd.prog. males rd.eff. females
lit. females		comp. males coll.rd.prog. females tutees male

POST-TESTING

lit. females coll.rd.prog. females		comp. males rd.eff. males & females tutees male
coll.rd.prog. males	scored significantly higher than	comp. males & female tutees male
lit. males tutees female		comp. males tutees male
rd.eff. males & females		tutees male

Differences pre to post-testing were significant for those in the college reading programme and female tutees who raised their scores significantly. Male tutees and females in composition lowered their scores significantly. The table of means for the third interaction appears in Table 16.

Survey of study habits and attitudes, study habits. For the fall semester on this scale there was a significant trial by group interaction ($F(4,95) = 11.75$, $p<.01$) as well as a significant trial by gender by group by gender interaction ($F(4,95) = 2.41$, $p<.05$). The following was revealed by post-hoc tests:

PRE-TESTING

lit. females		comp. males lit. males rd.eff. females coll.rd.prog. males & females tutees male
tutees female	scored significantly higher than	comp. males rd.eff. females coll.rd.prog. males & females
comp. females		coll.rd.prog. females

POST-TESTING

lit. females coll.rd.prog. females	scored significantly higher than	comp. males & females lit. males rd.eff. males & females tutees male
coll.rd.prog. males		comp. males & females rd.eff. females tutees male
lit. males tutees female		comp. males tutees male
rd.eff. males		tutees male

Pre to post-test differences were significantly lower for comp. males and females, while those in the college reading programme changed from being the lowest rated group to being the highest rated group on this measure. The table of means for this interaction can be found in Table 17.

Survey of study habits and attitudes, teacher approval. For the fall semester subjects there was a significant trial by group interaction ($F(4,95) = 3.65$, $p<.01$). Post-hoc tests showed that at pre-testing comp. students scored lower than all other groups on this measure. At post-testing, comp. students again scored lower than all other groups, while those in the college reading programme scored higher than all other groups. These subjects also made the greatest gains. The table of means for this interaction can be found in Table 18.

Survey of study habits and attitudes, education acceptance. For the fall semester subjects there was a significant trial by group

interaction ($F(4,95) = 5.29$, $p<.01$). Post-hoc tests showed that at pre-testing there were no group differences. At post-testing those in the college reading programme scored significantly higher than at pre-testing. Those in composition scored lower than all others. The table of means for this interaction can be found in Table 19.

Survey of study habits and attitudes, study attitude. For the fall semester subjects there was a significant trial by group interaction ($F(4,95) = 5.56$, $p<.01$). Post-hoc tests showed that at pre-testing there were no group differences. At post-testing those in the college reading programme made significant gains over pre-test scores, and also scored higher than all other groups. Those in composition scored the lowest. The table of means for this interaction can be found in Table 20.

Survey of study habits and attitudes, study orientation. For the fall semester there was a significant trial by group interaction ($F(4,95) = 8.59$, $p<.01$). Post-hoc tests revealed that at pre-testing there were no differences between groups. At post-testing once again those in the college reading programme made significant gains over pre-testing and also scored significantly higher than all other groups while those in composition scored lower than all other groups. The table of means for this interaction may be found in Table 21.

Correlations were performed between the gain scores and pre-test scores, study attitudes at pre-test, and number of hours tutored, to determine whether group differences on these latter scores might have confounded the results of the experimental manipulation. There were no consistent relationships between the test scores and these scores. An analysis of covariance, taking these scores into account, produced results that were parallel to the analysis of variance results.

Experimental results

For the fall and winter semesters, the experimental group was analyzed for group differences according to the subject tutored. The three sub-groups were: 1. those tutored in language skills 2. those tutored in mathematics and 3. those tutored in science subjects. There were significant group differences on almost all variables. Each will be created separately, naming the semester in which significant differences were found. Table 3, page 51, details the numbers of students in each group by gender. The table of means for significant interactions here may be found in Appendix K.

Study habits checklist, raw score and decile rank. For the second semester subjects, for both variables there was a significant group by gender by pre-post trial interaction ($F(2,30) = 7.35$, $p<.01$) ($F(2,30) = 5.39$, $p<.01$) respectively. Post-hoc tests showed the following significant interactions at pre-testing:

PRE-TESTING - RAW SCORE

lang. males	scored significantly lower than	science males & females lang. females math. females
math. males science females		males. science

PRE-TESTING - DECILE RANK

science males	scored higher than	males & females all other groups

Males tutored in language skills and males tutored in mathematics made significant gains pre to post-testing on the study habits checklist raw score, and males tutored in mathematics made significant gains on the decile ranking, pre to post-testing. The males tutored in language skills still scored lower on the raw score at post-testing than females in the group and males tutored in mathematics. The table of means for the raw score interaction may be found in Table 22 and for the decile interaction in Table 23.

Self-concept scale - Now. For the fall semester subjects on this variable there was a significant group by treatment interaction ($F(2,20) = 7.08$, $p<.01$). Post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in mathematics and science subjects, at the pre-testing. The table

of means for this interaction may be found in Table 24.

Diagnostic reading test. For the first semester subjects on this variable, there was a significant group by treatment interaction ($F(2,20) = 6.57$, $p<.01$). Post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in mathematics and science at the pre-testing. The table of means for this interaction can be found in Table 25.

For the second semester subjects the results were similar. ($F(2,30) = 7.89$, $p<.01$). Post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in mathematics and science, at the pre-testing. The table of means for this interaction can be found in Table 26.

College English placement test. For the first semester subjects on this variable, there was a marginally significant group by treatment interaction at the pre-testing ($F(2,20) = p<.06$). Post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in mathematics and science. The table of means for this interaction may be seen in Table 27.

For the second semester subjects the results are similar ($F(2,30) = 5.93$, $p<.01$). Post-hoc tests showed that there was a significant group by treatment interaction at pre-testing. Those tutored in language skills scored significantly lower than those

tutored in mathematics and science subjects. The table of means for this interaction is presented in Table 28.

Essay. For the first and second semester subjects on this variable, there was a significant group by treatment interaction at the pre-testing ($F(2,20) = 4.58$, $p<.03$); ($F(2,30) = 3.31$, $p<.05$) respectively. For both semesters those tutored in language skills scored significantly lower than those tutored in mathematics and science. The table of means for the fall semester may be seen in Table 29 and for the winter semester in Table 30.

Survey study habits and attitudes, work methods. For subjects in both semesters on this variable there was a significant interaction at the pre-testing trial ($F(2,20) = 3.89$, $p<.04$) and ($F(2,30) = 9.01$, $p<.01$) fall and winter, respectively. Post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in mathematics and science. For the fall subjects there was a significant group by gender by pre-post trial interaction at the post-testing ($F(1,20) = 10.42$, $p<.01$). Post-hoc tests showed that the females scored significantly higher than the males overall, with the males regressing. The table of means for the fall semester may be found in Table 31, and for the winter semester in Table 32.

Survey of study habits and attitudes, study habits. For subjects in the fall semester on this variable, there was a significant group by gender interaction at pre-post trial ($F(1,20) = 7.50$, $p<.01$) and for the second semester there was a significant gener by group interaction ($F(2,30) = p<.04$). Post-hoc tests showed that females in the fall scored significantly higher than males at post-testing, whereas males tutored in language skills scored significantly lower than all those tutored in mathematics and sciences at the pre-testing trials for the second semester. The table of means for the fall interaction may be found in Table 33, and for the winter in Table 34.

Survey of study habits and attitudes, teacher approval, education acceptance, study attitudes and study orientation scales. On these four scales of this test significant results may be seen pre to post-testing for subjects tutored in the fall, group by gender interaction, ($F(1,20) = 5.84$, $p<.03$) ($F(1,20) = 4.33$, $p<.05$) ($F(1,20) = 6.01$, $p<.02$) ($F(1,20) = 6.85$, $p<.02$) respectively. In all instances post-hoc tests revealed that females scored significantly higher than males on these four variables. There were no overall group differences. The table of means for this interaction may be seen in Table 35.

Results for subjects in the winter semester on these four variables are not similar. There were no apparent differences by gender. Post-hoc tests showed that group differences were apparent at the pre-test trial on the education acceptance and study

orientation scales. On the first named variable, those tutored in language skills scored significantly lower than those tutored in science, at the pre-testing ($F(2,30) = 4.62$, $p<.02$). On the overall study orientation scale, post-hoc tests showed that those tutored in language skills scored significantly lower than those tutored in both mathematics and science, on the pre-test,($F(2,30) = 4.08$, $p<.03$). The table of means for this interaction may be seen in Table 36.

DISCUSSION

The research that was undertaken at Champlain College - St. Lambert, used students' pre to post gain scores on standardized tests as the principal criterion for determining the effectiveness of the student learning centre. This was in keeping with recommendations in the literature suggesting that standardized pre and post tests be used as the minimum criterion for evaluating any publicly-funded research programme (Maxwell, 1979, p.192).

Most of the research published to date has described students' improvement in a specific skill area, such as reading, based on their performance on a single test (Cross, 1976). Prominent researchers in the field of developmental education, such as Cross (1976), Roueche and Snow (1977) and Maxwell (1979) emphasize that student improvement should be assessed from scores on a battery of tests as opposed to a single test. However, a thorough review of current research in this area failed to reveal a controlled study which incorporated a battery of tests to evaluate the effectiveness of a learning centre. This report represents what appears to be the first systematic attempt at an evaluation of this nature, using both experimental and control groups.

It was hypothesized that students tutored in the student learning centre would show significantly greater improvement over control groups on the five standardized tests that were administered to all groups at the beginning and end of each semester. It was expected

that the individualized nature of the treatment would foster this improvement, as it was believed that weaker students would benefit more from the relaxed atmosphere of the tutoring sessions (Maxwell, 1979). In addition, research on tutoring has shown that both tutees and tutors benefit from the tutoring experience (McWhorter and Levy, 1971; Drucker, 1976).

In this study, the tutees did not show significant improvement over those in the control groups. Moreover, no one group improved significantly over all other groups on all of the measures.

From an examination of the population results, certain trends do emerge. For example, females scored consistently higher than males on those test variables which assessed reading and writing ability and study attitudes and behavior. This is in keeping with research which suggests that adult females possess greater verbal, vocabulary and grammatical skills than do males (Maccoby, 1966). Certainly, studies have shown that females at younger ages score higher on reading tests than do males (Johnson, 1974). No research was found about females vs. males on study behavior inventories, but the norms for the Study Habits Checklist indicate that women as a group are expected to score higher on this test (Preston & Botel, 1967). This trend is consistent with the findings in the experimental and control groups.

The research conducted on the experimental and control groups took place over two semesters. Results for the two semesters are not similar. It is expected that this is attributable to the unequal number of subjects in the groups (see Table 3). The

This further underlines statements made by researchers such as Cross (1976) that skills courses alone do little to remedy the problem of the underprepared and the unmotivated student. It is interesting to note that the males in group one scored lower than the females on the Essay variable. This parallels results from the population data, discussed above. The males in group one proved to be the weakest overall subgroup, on most of the variables, for both semesters. Their scores on the inventories to measure study habits and study attitudes were consistently lower than those of all other groups.

The subjects in control group two scored high enough on the College English Placement Test and Essay so as to be able to enrol in the literature course of their choice. One would therefore expect that this group would score higher on the tests, as compared to group one. This is in fact supported by the results of this experiment. Again, the females in this group scored higher than the males in this group and in most other groups on the Study Habits scales of the Survey of Study Habits and Attitudes. The group as a whole showed significant improvement, pre to post-testing on the Essay variable. As they are required to write five essays in their literature course, one would expect their writing ability to improve significantly.

Subjects enrolled in group three, the Reading Efficiency course, work on improving reading, writing and study skills throughout the semester. Subjects in this group did show a significant improvement pre to post-testing on the Study Habits Checklist, which measures the skills used by students when studying. Their improvement is signif-

process of selecting subjects for the control groups, which was done by arbitrarily choosing names from class lists, allowed for equal numbers at pre-testing. However, subjects were often reluctant to attend the post-testing session, despite the carrot offered of early registration. The post-testing session was held at the end of term and often interfered with exam preparation, especially as the testing lasted for four hours. This resulted in unequal numbers of subjects pre to post-testing in the various groups, especially in the winter semester when many were not planning to reregister at Champlain - St. Lambert the following semester.

Although no one group improved significantly over all other groups on all of the variables, certain patterns do emerge from an examination of the results. Although there were few differences between the groups at pre-testing, fairly consistent group effects at post-testing do appear. It is believed that these differences are due to the nature of the group treatment.

Group one consisted of those students who were required to enrol in a composition course, as a result of low scores on the College English Placement Test. This represented the only English course in which enrollment was compulsory. One would thus expect that both the motivational and skill levels of these students on the average would be considerably lower. This was indeed supported from the results of this experiment. Even at post-testing, group one scored lower on the Essay variable than all other groups, despite their having completed a composition course.

This further underlines statements made by researchers such as Cross (1976) that skills courses alone do little to remedy the problem of the underprepared and the unmotivated student. It is interesting to note that the males in group one scored lower than the females on the Essay variable. This parallels results from the population data, discussed above. The males in group one proved to be the weakest overall subgroup, on most of the variables, for both semesters. Their scores on the inventories to measure study habits and study attitudes were consistently lower than those of all other groups.

The subjects in control group two scored high enough on the College English Placement Test and Essay so as to be able to enrol in the literature course of their choice. One would therefore expect that this group would score higher on the tests, as compared to group one. This is in fact supported by the results of this experiment. Again, the females in this group scored higher than the males in this group and in most other groups on the Study Habits scales of the Survey of Study Habits and Attitudes. The group as a whole showed significant improvement, pre to post-testing on the Essay variable. As they are required to write five essays in their literature course, one would expect their writing ability to improve significantly.

Subjects enrolled in group three, the Reading Efficiency course, work on improving reading, writing and study skills throughout the semester. Subjects in this group did show a significant improvement pre to post-testing on the Study Habits Checklist, which measures the skills used by students when studying. Their improvement is signif-

icantly different from those in the composition course and in the literature course on this variable. It is to be expected that these students might show improvement on the checklist especially as it measures the types of study benaviour which the students are taught to actively apply in both the reading efficiency course and all other subjects. That they also had significantly higher scores on the essay might partly be a result of teacher effect. The instructor for this course concentrates on essay writing, using the books read by the students as the content for teaching them how to structure an appropriately organized essay.

Students in group four, the college reading programme, volunteer to enrol in two courses: a course in reading efficiency and one in study skills. They accordingly have a total of ninety hours of classroom instruction in which the emphasis is placed on improving reading, writing and study skills. Students are also encouraged and even given the opportunity to apply these skills to other courses by being given credit in the college reading programme for so doing. Attention is also paid to the development of the self-concept, both in the regular classroom setting and within the confines of the tutoring at the high school level which the college students do for ten one-hour sessions throughout the semester.

As the skills worked on in these courses parallel the content of the standardized tests used in this evaluation, it is to be expected that this group would show greater improvement, pre to post-testing, than the other groups. For both semesters this is indeed true. Subjects in this group showed significant improvement on the Study

Habits checklist, the Essay, and both the Study Habits and Attitudes Scales of the Survey of Study Habits and Attitudes, i.e., all those variables for which there were any significant group interactions.

Analysis of the results from the experimental group showed that there were no significant differences for this group as a whole, as compared to the control groups. It was encouraging however to note that subjects in group five did improve, pre to post-testing, on the Study Habits Checklist, both raw and decile scores, for both semesters.

The experimental group was then analyzed for within group differences according to the subject tutored. These subject categories were language skills, mathematics and science.

Methods of referral differ according to subject category. The majority of those tutored in language skills were referred by their teachers, while those tutored in mathematics and in science usually referred themselves. Motivation is often greatest when tutees refer themselves for help, thus volunteering their own time. This effect is obvious from the pre-test results. Those tutored in language skills scored consistently lower on all significant measures, as compared to tutees tutored in mathematics and science. This is true for both semesters. Again, it was the males tutored in language skills who proved to be the weakest sub-group within the experimental group as they were within the control group.

Male-female differences emerge on the seven scales of the Survey of Study Habits and Attitudes. Females, as in the control groups, and for the population, scored higher than males, pre-post testing.

On the work methods scale for the fall semester, the males not only failed to improve, but actually regressed.

The results from the experimental group are somewhat predictable. Despite the individualized attention that subjects in this group received, they only met with their tutors for an average of eight hours over the fifteen week semester. This contrasts with the forty-five hours of classroom instruction received by subjects in the composition, the literature and the reading efficiency courses, and the ninety hours of classroom time and ten hours of tutoring completed by those in the college reading programme.

In this study, those tutored in the learning centre, especially those tutored in mathematics and in science, needed emergency help. Because of time limitations, tutors concentrated on specific content-area material, rather than on developing reading, writing and study skills. The standardized tests used to evaluate the effectiveness of the learning centre were designed to measure improvement in the basic skill areas of reading, writing and studying, and did not take improvement in content-area material into consideration. As these standardized tests are reliable, one would expect that they would be relatively impervious to change over a short period of time, unless the specific skills that they test for were actually worked on. This most probably accounts for the substantial gains made by subjects in the reading efficiency course and in the college reading programme who worked on these skill areas, as compared to those tutored in the learning centre.

Standardized tests therefore have limited application, in terms of assessing gains made in individualized tutoring programmes (Maxwell, 1979, p.191). Tutees work on different skills, at different levels, and at different rates. In order to effectively assess relative gains made in the specific area, one would have to include a pre and a post subject-area diagnostic test, tailored to the individualized tutoring programme, in the overall test battery. If such tests were to be used for evaluation purposes, their validity and their reliability would have to be established. The individualized nature of each tutoring programme would necessitate developing individualized diagnostic tests. The process of standardizing these tests would be impossible.

Several researchers such as Cross (1976), Roueche and Snow (1977) and Maxwell (1979) have deplored the paucity of follow-up research done on students who enrol in developmental programmes. Roueche and Snow (1977) claim that high student retention and programme completion are two essential criteria for successful developmental programmes (p.78). They also claim that, in order to be successful, current evaluation of remedial/developmental programmes, must include these two criteria.

Cross (1976) states that ..."whether a remedial programme is judged "successful" or not depends on the criteria used" (p.36). Robinson (1950, p.83), as quoted in Cross (1976, p.37) takes the position that "academic performances is clearly the sine qua non for the validation of remedial courses ... In the final analysis remedial

instruction must necessarily stand or fall on the basis of this single criterion." Maxwell (1979) also states that the grade point average that follows the completion of a designated course or programme may be a more accurate reflection of the degree to which students learn to use the skills, rather than simply to acquire a knowledge of them (p.304).

From the above it can be seen that longditudinal data on student performance is a more accurate reflection of student success than test scores on a battery of standardized tests, administered pre and post treatment, over a short period of time.

The use of standardized tests in the areas of reading, writing and studying as the principal criterion for evaluating the effectiveness of individualized tutoring programmes through the student learning centre at Champlain Regional College - St. Lambert, should thus be questioned. In order to extend the research upon which this report is based and to more accurately assess student learning, it is recommended that the following longitudinal data on students tutored through the learning centre be collected:

1. Did the student complete the semester?
2. Did the student complete the course in which he was tutored?
3. Did the student pass or fail this course?
4. How did the student's final mark relate to the class average?
5. Is there a relationship between the total number of hours tutored and the student's relative rank in the class, as per criteria #3 above?
6. Did the student elect to take other courses in the discipline?

7. Did the student elect to be tutored in the same subject in following semesters?
8. Did the student elect to change his programme of study?
9. Did the student complete the college programme?
10. Did the student elect to be tutored in other subjects in succeeding semesters?
11. Is there a relationship between scores received on the skills and attitudes test administered during Phase I and student marks?
12. Did the student's view of himself as a student change?

It is felt that the data collected from this type of follow-up would present a much more comprehensive idea of the success of the individualized tutoring received by students in the learning centre.

REFERENCES

Aiken, L. Update on attitudes and other affective variables in learning mathematics. Review of educational research, 1976 46, 2, 293-311.

Allen, V. L. (Ed.). Children as teachers: Theory and research on tutoring. New York: Academic Press, 1976.

Bills, R. G., et al. An index of adjustment and values. Journal of Consulting Psychology, 15 , 1951, 254-259.

Bloom, B. S. Mastery learning. In J. H. Block (Ed.), Mastery learning: Theory and practice. New York: Holt, 1971.

Brookover, W. B., et al. Self concept of ability and school achievement. Sociology of Education, 37, 1964, 271-278.

Brown, W. F., and Holtzman, W. H. Survey of Study Habits and Attitudes. New York: The Psychological Corporation, 1965.

Crown, W. F., and Holtzman, W. H. SSHA Manual: Survey of Study Habits and Attitudes. New York: The Psychological Corporation, 1965.

Buros, O.C. The seventh mental measurements year book. New Jersey: The Gryphon Press, 1972.

Coates, L. F. The enigma of the survey section of the Diagnostic Reading Test. In G. B. Schick and M. M. May (Eds.), Multidisciplinary aspects of college-adult reading. Yearbook of the National Reading Conference, 1968, 17 70-78.

Cross, K. P. Accent on learning. San Francisco: Jossey-Bass, 1976.

The committee on Diagnostic Reading Test. The Diagnostic Reading Test. Mountain Home, North Carolina, 1974.

The committee on Diagnostic Reading Tests. Diagnostic Reading Tests: Norms. Mountain Home, North Carolina, 1974.

Drucker, R. P. Report on the peer-tutoring program for women and minority freshmen in the sciences and mathematics. Berkeley: Student Learning Centre, University of California, 1976.

Duncan, P. H. Six roles and reading instruction: A critique of related research. In W. D. Miller and G. H. McNinch (Eds.), Reflections and investigations on reading. Yearbook of the National Reading Conference, 1976, 25, 52-62.

Farr, R. Reading: What can be measured? Newark, Delaware: International Reading Association, 1969.

Gartner, A., et al. Children teaching children: Learning by teaching. New York: Harper and Row, 1971.

Godshalk, F. I, Swineford, F. and Coffman. The measurement of writing ability. New York: College Entrance Examination Board, 1966.

Harrison, G. V. The effects of trained and untrained student tutors on the criterion performance of disadvantaged first-graders. Paper presented at the annual meeting of the California Educational Research Association, Los Angeles, California, March 1969.

Hasse, A. M., et al. Measurement of college students' self-concept: A pilot study. In W. D. Miller and G. H. McNinch (Eds.), Reflections and investigations on reading. Yearbook of the National Reading Conference, 1976, 25, 52-62.

Haugh, O. M., and Brown, J. I. College English Placement Test. Boston: Houghton-Mifflin, 1969.

Haugh, O. M., and Brown, J. I. College English Placement Test: Manual for administrators and examiners. Boston: Houghton-Mifflin, 1967.

Hedges, L. V., et al. The effects of peer tutoring on medical admissions test scores. OASIS Research Report No. 5. San Diego: Office of Academic Support and Instructional Services, University of California, 1976.

Hoover, R. M. Experiments in peer teaching. College Composition and Communication, 1972, 23, 421-423.

Jackson, B., and Van Zoost, B. Self-regulated teaching of others as a means of improving study habits. Journal of Counselling Psychology, 1974, 21, 489-493.

Johnson, D. D. Sex differences in reading across cultures. Reading Research Quarterly, 9, 1973-1974, 7, 67-86.

Keller, F. The Keller plan handbook. Manlo Park, California: W. A. Benjamin, 1974.

Kerwin-Boudreau, S., and Woodruff, S. A student learning centre: Run by students, for students. Journal of the Association of Canadian Community Colleges, August 1980.

Kerwin-Boudreau, S., and Woodruff, S. Tips for tutoring. Champlain Regional College, St. Lambert, Quebec, December 1979.

Kogelman, S., and Warren, J. Mind over math. New York: McGrawhill, 1979.

Lang, J. B. Self-concept and reading achievement - an annotated bibliography. The Reading Teacher, May 1976.

Lovelace, T. L., McKnight, C.K. The effects of reading instruction on calculus students' problem solving. Journal of reading, 23, 4, 1980, 305-308.

Lynch, M. D. et al. Self-concept and reading instruction programs. In W. D. Miller and G. H. McNinch (Eds.), Reflections and investigation on reading. Yearbook of the National Reading Conference, 1976, 25, 198-201.

Maccoby, E. E. (Ed.). The development of sex differences. Stanford University Press, 1966.

Mahoney, M. J., and Thoreson, C. E. Self-control: Power to the person. Monterey, California: Brooks-Cole, 1974.

Maxwell, M. Improving student learning skills. San Francisco: Jossey-Bass, 1979.

Meichenbaum, D. Cognitive behavior modification. New Jersey: General Learning Press, 1974.

McWhorter, K. T., and Levy, J. The influences of a tutorial program upon tutors. Journal of Reading, 1971, 14, 221-224.

Moore, W., Jr. Community college response to the high-risk student: A critical reappraisal. ERIC clearinghouse for Junior colleges, Horizon Series. Washington, D.C.: American Association of Community and Junior Colleges, 1976.

Osgood, C. E. et al. Measurement of meaning. Illinois: University of Illinois Press, 1967.

Preston, R. C., and Botel, M. Study Habits Checklist. Chicago, Illinois: Science Research Associates, 1967.

Preston, R. C., and Botel, M. Administration and interpretation of the Study Habits Checklist. Chicago, Illinois: Science Research Associates, 1967.

Priestley, F. E., and Kerpneck, H. I. Report of Commission on undergraduate studies in English in Canadian universities. Association of Canadian University Teachers of English, December, 1976.

Pumfrey, D. Measuring reading abilities: Concepts, sources and applications. London: Hodder and Stoughton, 1977.

Quandt, I. Self-concept and reading. Newark, Delaware: International Reading Association, 1972.

Rauch, J. Handbook for the volunteer tutor. Newark, Delaware: International Reading Association, 1969.

Robinson, M. A. A note on the evaluation of college remedial reading courses. Journal of Educational Psychology, February 1950, 41, 83-96.

Roueche, J. E., and Pitman, J.C. A modest proposal: Students can learn. San Francisco: Jossey-Bass, 1972.

Roueche, J. E., and Snow, J. J. Overcoming learning problems. San Francisco: Jossey-Bass, 1977.

Scanlon, J. Composition placement testing: Sowing a few truths. CEA Forum, February 1980.

Schreiner, R. (Ed.). Reading Tests and Teachers: A practical guide. Newark, Delaware: International Reading Association, 1979.

Schwartz, G. Program to develop reading efficiency and academic effectiveness in high-risk college students. Department of Education, Province of Quebec, June 1977.

Shaver, J. P. and Nuhn, D. The effectiveness of tutoring under-achievers in reading and writing. Journal of Educational Research, 65, 3, 1971.

Snow, J., et al. Tutorial assistance program evaluation. Austin: University of Texas, office of Dean of Students, 1975.

Watanable, C., and Maxwell, M. Patterns of EOP Students' use of the student learning centre's chemistry tutoring program and final grades in freshmen chemistry. Berkeley: Student Learning Centre, University of California, 1975.

Woodruff, S., and Kerwin-Boudreau, S. Addendum: A manual for tutors Champlain Regional College, St. Lambert, Quebec, 1979.

Wooley, J. A summary of tutorial services offered by California community colleges. About Tutoring, October 1976, 1-7.

Wylie, R. C. The self concept. Lincoln, Nebraska: University of Nebraska Press, 1961.

APPENDIX A

Standardized Tests:

Diagnostic Reading Tests - Survey Section Form A

College English Placement Test

Essay Topics

Study Habits Checklist

Survey of Study Habits and Attitudes

Self-Concept Scale

DIAGNOSTIC READING TESTS
SURVEY SECTION: UPPER LEVEL
(From Grade 7 through College Freshman Year)

FORM A

By *The Committee on Diagnostic Reading Tests, Inc.*:
Frances Oralind Triggs, *Chairman;* Robert M. Bear, Dartmouth College;
George D. Spache, University of Florida; Agatha Townsend, Editor;
Arthur E. Traxler, Educational Records Bureau; Frederick L. Westover, University of Alabama.

Do not write in these spaces unless told to do so. Read the general directions below.

Name (Please print clearly)_____
(Last name) (First name) (Middle name)

Grade_____ Sex_____ Age_____ Date of Birth_____
M or F Yrs. Mos.

School_____ Date Today_____

City_____ Teacher_____

GENERAL DIRECTIONS

THE PURPOSE of this test is to find out how well you can read. There are three parts: General Reading, Vocabulary, and Comprehension. The examiner will tell you when to start and when to stop each part. Be sure to follow instructions exactly. Do not begin any new part until you are told to do so.

Read each question carefully, but do not work too long on any *one* question. You can use any extra time you may have at the end of each part by going back and working on the questions in that part about which you were in doubt. You may not return to a part after the time for that part is over. You may answer questions about which you are not entirely sure, but you should avoid wild guessing.

Before each part of the test you will find directions. These directions explain how you are to record your answers regardless of whether you are recording them on separate answer sheets or in the booklet. The examiner will go over these directions with you in detail before you start the test.

	RAW SCORES	GRADE	PERCENTILES
Score 1a. Rate of Reading (General Reading)			
Score 1b. Story Comprehension (Items 1-20)			
Score 2. Vocabulary (Items 21-80)			
Score 3. Comprehension (Items 1-20 and 81-100)			
Score 4. Total Comprehension (Items 1-100)			

Former Members of the Committee: IVAN A. BOOKER, 1945-1950; A. EASON MONROE, 1945-1950; DANIEL D. FEDER, 1945-1951; CONSTANCE M. McCULLOUGH, 1945-1952

Published and Distributed by *The Committee on Diagnostic Reading Tests, Inc.*
Mountain Home, North Carolina
Copyright 1947 by *The Committee on Diagnostic Reading Tests, Inc.*

Revised 1966—Reprinted, 1966(3)
Distributed by *Science Research Associates, Inc.*
259 East Erie Street, Chicago, Illinois 60611 Reorder No. 7-1421

PART 1: GENERAL READING

DIRECTIONS: This is a test of your skill in general reading. Read the short article in this test in the same way that you ordinarily read any easy, interesting stories or articles. Read as rapidly as you can and still understand what you read. When you finish reading, you will be asked to answer questions on the material you have read.

To start the test, everyone will read together the lines at the bottom of this page. The examiner will read *orally* and you should follow, reading *silently*. When we come to the last word on the page, the examiner will stop, and you will simply turn the page and keep right on reading.

After you have read for several minutes, the examiner will say "Mark."

IF THE ANSWERS ARE TO BE RECORDED IN THIS BOOKLET, put a circle around the word you are reading when the examiner says "Mark." Then go right on reading.

IF THE ANSWERS ARE TO BE RECORDED ON SEPARATE ANSWER SHEETS, you will use the place on the answer sheet labeled "Scores." On the separate *answer sheets* find space 1a under "Scores" and place a check mark there. Note that each line of the reading selection is numbered in the left-hand margin. When the examiner says "Mark," *write the number of the line you are reading in Space* 1a under "Scores" on your *answer sheet*. After you have written this number, go right on reading the article.

When you finish reading you will find printed directions telling you what to do next. DO NOT READ ANY PART OF THE SELECTION MORE THAN ONCE.

If you have any questions about the directions, *ask them now;* if not, wait for the signal to turn to the next page.

THE CROW

If human beings wore wings and feathers, very few of them would be clever enough to be crows. The common crow, whether in the wild state or kept as a pet, is a genius in feathers and an endlessly astonishing bird.

A crow owned by a lady in Stuart, Ohio, was so dainty that he insisted on washing worms before he would eat them. A Staten Island crow not

only could pick pockets but when he found a pocket empty, would swear at his victim and fly away in a huff.

Not all crows can talk. Their individual ability varies greatly in this respect, and probably no crow can talk better if its tongue is split. Certain ones captured when young have been known to learn a hundred words and half as many complete phrases. There are even records of wild crows picking up and using such human expressions as "Giddyap!" and "Whoa!" and "Hey!" which they hear farmers shout in the fields.

When a crow does speak human language, he often gives the impression that he knows the exact meaning of what he is saying. A moonshiner, who had kept a pet crow as a lookout against government agents, was taken to jail. The crow was taken too. The human prisoner gave no trouble, but the bird proved something of a problem. He yelled, "I want water!" when the supply in the cell began to dwindle. Whenever an attractive female visitor passed through the jail corridor, he thrust his neck between the cell bars, stared at the lady, and muttered, "Oh-boy-oh-boy-oh-BOY!"

The common crow, with his three closely related varieties, the Florida crow, southern crow and western crow, is found practically all over our country east of the Rocky Mountains, as well as in sections of the Northwest and along our western coast down to Southern California.

In building their nests, as in everything else, crows prove that they are individualists. Most often the nest, a bulky structure of coarse sticks, twigs, grasses and tree bark, lined with soft rootlets of fur or moss, is in an evergreen, and is about thirty feet from the ground. They often decorate their nests by inserting in them a shiny pebble or glittering pieces of glass.

As crows are always more or less clannish, there are usually a number of nests within a small area, and the occupants exercise their sly mischievousness by stealing each other's nesting materials. When one of the nesters flies off to feed for a while, one of his dark neighbors rushes to the unprotected nest, removes from it the choicest bits of moss and rootlets, and hides them in his own nest. Then, when the thief is absent from his nest for a while, the recently burglarized bird flies over and regains all the stolen goods, plus half a dozen other choice bits. This pilfering is probably a friendly joke, for actually crows are devoted to one another and are bound by a sense of unity that leads them to show each other extraordinary courtesy and understanding.

The young stay in the nest about three weeks, consuming their weight in food every day, and by the time they are ready to leave they look almost like their parents except that their coats have less luster. For several days they practice flight maneuvers and wing drills before the critical elders of the flock. The oldsters show them the lay of the land and teach them the rules of the community of fifty or sixty crows nesting in the neighborhood.

Despite the individualism of its members, a flock is as disciplined as an army. It posts sentinels in a high tree to keep watch while the others feed. It has special flight maneuvers: low, fast and scattering for the mornings; high, slow and single-file for the evenings; forty-five miles per hour in absolute silence when the sentry signals that a man with a gun is coming. When traditional enemies such as owls or foxes are sighted, it is a rule that all flock members must raise a terrific rumpus. Only when the young have been trained in these practices are they ready for adulthood.

The youngsters take advantage of their long apprenticeship to swindle as much free food as possible out of their parents. Although perfectly able to forage for themselves, they pester their elders with loud and piteous cries to be fed. Sometimes the cleverest of the young feign illness in order to sponge on their parents.

Life for crows, as for all other creatures, consists principally of getting enough to eat and avoiding enemies. Crows can and do eat almost anything: wasps, toads, or even poison ivy. They eat so many other things that a list of them takes three pages of fine type in a Department of Agriculture report. Certain items are special favorites, and crows' inventions for getting them are endless.

Hunting for mice, for instance, is tedious, so a crow sometimes rides on the back of a pig that is foraging in the field. When the rooting porker turns up a field mouse, the crow gobbles the mouse and flies off with a mirthful cackle. To get shellfish, which he loves but which his beak is not strong enough to open, a crow picks up a clam or oyster, flies high in the air, and drops the shelled morsel on a rock.

There is no limit to the hunting tricks of the crow, and very little limit to his appetite and digestion. A pet crow belonging to a Long Island naturalist once consumed a pint of house paint and survived.

Crows have a vocabulary, some naturalists believe, of at least twenty-five caw-words for keeping each other posted on doings in the neighborhood. All crows can hear so well that they detect the snap of a twig in the woods more acutely than any other wild creature except a deer. State

and local governments have offered bounties on crows for years, but experts agree that there are more crows in the country today than there were when the Pilgrims landed.

Without serious threat from enemies or starvation, crows are free to spend much of their time in games and practical jokes. One favorite and rowdy game is Waking The Sleepers. On hot noondays they love to fly silently over the countryside, sneaking up on a slumbering rabbit and rapping him sharply on the skull or settling silently on the backs of drowsy cattle and then setting up a sudden uproar that terrifies the cows.

Another sport is Hide and Seek. A young crow leaves the flock, hides in a hollow tree, and loudly sounds the distress caw. The flock rushes to the spot, fails to find him, and flaps away again. The distress caw is again sounded. Back comes the flock, hunts vainly again, and again goes away. This may be repeated a dozen times, after which the young crow pops out of concealment and guffaws. The flock, far from being annoyed, bursts into a hawing and cawing of general merriment.

When a crow has committed an offense against the laws of crowdom, the flock gathers in judgment. The offender perches on a branch at some distance from the rest of the assemblage, while the other crows hold a meeting, lasting sometimes for hours. Then the discussion suddenly ceases, and there is a moment of silence, after which the flock either rises in unison and flaps away about its business or swoops down in a mass dive upon the offender, pecks his eyes out, and buffets him to death.

In autumn the small summer flocks of crows gradually merge together into larger flocks, and presently they make their way to their great winter roosts. These roosts are sometimes 1,500 miles south of the summer feeding grounds. The crow population of a vast roost not far from Baltimore has been calculated to be 230,000. A roost near Arlington National Cemetery has housed 150,000 crows; another at Peru, Nebraska, contained 100,000. These great roosts have been used for centuries; records show that some of them have been occupied by wintering crows since the white man first arrived in this country.

Crows' influence on agriculture is about evenly divided between harm and good. About seventy-two percent of a crow's diet is of vegetables, fruits, and nuts, and about half the vegetable category is corn. The remaining twenty-eight percent is of insects, rodents, and a few odds and ends such as eggs and fledglings of wild birds, poultry chicks, carrion, and reptiles.

Many are the tales told of the amazing doings of pet crows. A crow named Pete that lived in the South in the 1830's was one of the most famous characters that the Bluegrass Country ever produced. Pete was responsible for the introduction of starting bells at race tracks. He was in the habit of frequenting the Georgetown race track, and on the day of a big race, just as the horses were being lined up, Pete created a riotous scene by yelling "Go!"

The knowingness of a crow is not the thought-born "intelligence" of a man. It is rather a thing of natural cunnings and an innate prankish glee. By it the crow is enabled to enjoy life and to hold his own in a hostile world. To all who observe him, the crow is a source of constant surprise.

Turn to the next page.

Read the directions.

Mark the answers according to the directions.

QUESTIONS ON *The Crow*

DIRECTIONS: Read the statement. Choose the answer that agrees with the test selection you have just read, even if you have a different opinion about it.

IF THE ANSWERS ARE TO BE RECORDED IN THIS BOOKLET, place the number of the answer in the parentheses at the right. Study the following example:

Sample: The color of grass is

(1) green (2) blue (3) purple (4) orange . . . . . (1)

IF THE ANSWERS ARE TO BE RECORDED ON SEPARATE ANSWER SHEETS, make a *heavy, black, glossy mark* on the answer sheet under the number that agrees with the number of the answer you chose. Use the special pencil which your examiner gave you. Study the following example:

Sample: The color of grass is

(1) green (2) blue (3) purple (4) orange

Notice the space under number one has been marked because the correct answer, green, has that number.

Do NOT go back to the reading selection.

1. Splitting a crow's tongue
   (1) makes it possible for the crow to talk ..... ( )
   (2) makes no difference in its ability to talk ..... ( )
   (3) will keep it from learning to talk ..... ( )
   (4) improves the distinctness of its speech ..... ( )

2. The story of the crow in the jail illustrates the fact that crows
   (1) are loyal pets ..... ( )
   (2) make good lookouts ..... ( )
   (3) can easily adapt to any situation ..... ( )
   (4) frequently seem to know the meanings of the words they speak ..... ( )

3. The nest of a crow is usually found
   (1) in a low bush ..... ( )
   (2) in a tree ..... ( )
   (3) on a rocky ledge, thirty or forty feet above the ground ..... ( )
   (4) in a deserted house or barn ..... ( )

4. Crows frequently
   (1) steal each other's nesting materials ..... ( )
   (2) lay their eggs in the nests of other birds ..... ( )
   (3) conceal their nests to prevent other crows from stealing their eggs .... ( )
   (4) attack and kill the young in the nests of other crows ..... ( )

5. Relationships among the crows in each flock are best described as
   (1) independent and unfriendly ..... ( )
   (2) deceitful and suspicious ..... ( )
   (3) aggressive and quarrelsome ..... ( )
   (4) friendly and courteous ..... ( )

6. A community of crows during the nesting season usually includes
   (1) ten or twelve members ( )
   (2) fifty or sixty members ( )
   (3) four or five hundred members ( )
   (4) several thousand members ( )

7. When the young crows are ready to leave their nests, the adults
   (1) instruct them in the rules of the flock ( )
   (2) abandon them to forage for themselves ( )
   (3) try to prevent them from flying away to join other flocks ( )
   (4) hold a meeting and choose the future leader of the flock ( )

8. If in the early evening, you were standing near the night roosting place of a flock of crows, you might expect to see them flying in to roost
   (1) from all directions, singly ( )
   (2) fast and in groups of threes and fours ( )
   (3) slow and single-file ( )
   (4) at forty-five miles per hour in absolute silence ( )

9. When crows discover a fox, they usually
   (1) swoop down and attack the animal ( )
   (2) remain absolutely silent until the animal is out of sight ( )
   (3) fly off in all directions, as quietly as possible ( )
   (4) all start cawing noisily ( )

10. After the young crows have left the nest, they
   (1) frequently refuse to eat unless their food is carefully washed for them ( )
   (2) are extremely independent and insist on getting their own food as early as they possibly can ( )
   (3) try to get their parents to feed them as long as possible ( )
   (4) frequently kill each other unless they are carefully guarded by their parents ( )

11. A Department of Agriculture report devotes three pages to a list of
   (1) crops which crows damage ( )
   (2) food which crows eat ( )
   (3) materials which crows use for making nests ( )
   (4) districts in which crows nest ( )

12. The crow is able to open clams and oysters
   (1) with its powerful beak ( )
   (2) by dropping rocks on them ( )
   (3) by dropping them on rocks ( )
   (4) by pounding them with small stones ( )

13. Experts believe that crows are
   (1) more numerous than ever ( )
   (2) decreasing slowly, but will probably never disappear entirely ( )
   (3) about as numerous today as they were when the Pilgrims landed ( )
   (4) likely to be exterminated in the next twelve years ( )

Go on to the Next Page

14. Crows are said to surpass all other wild creatures except deer in their ability to
    (1) see ..... ( )
    (2) sense direction ..... ( )
    (3) smell ..... ( )
    (4) hear ..... ( )

15. It is believed that crows have a vocabulary of signals of
    (1) 5 or 6 caws ..... ( )
    (2) about 25 caws ..... ( )
    (3) 70 or 80 caws ..... ( )
    (4) over 100 caws ..... ( )

16. Crows spend much of their time
    (1) fighting ..... ( )
    (2) sleeping ..... ( )
    (3) hiding from their enemies ..... ( )
    (4) playing games ..... ( )

17. When a crow is being tried for a violation of a law of the flock
    (1) he is isolated from the flock ..... ( )
    (2) he acts as his own lawyer and defends himself ..... ( )
    (3) his friends act as his lawyers and defend him ..... ( )
    (4) he sits in the center of the flock carefully guarded by the others ..... ( )

18. During the winter months, crows
    (1) fly south in separate pairs and spend the winter in small groups ..... ( )
    (2) return to long-established winter roosts ..... ( )
    (3) gather in large flocks and spend the winter together in the vicinity of their spring nests ..... ( )
    (4) fly about in pairs wherever they can find food ..... ( )

19. Because of his eating habits the influence of the crow upon agriculture is
    (1) much more harmful than beneficial ..... ( )
    (2) almost entirely beneficial ..... ( )
    (3) about as much harm as good ..... ( )
    (4) much more beneficial than harmful ..... ( )

20. A crow is said to be responsible for the introduction of
    (1) harness bells ..... ( )
    (2) starting bells at race tracks ..... ( )
    (3) blinders on horses ..... ( )
    (4) the Kentucky Derby ..... ( )

Wait for the signal before going on.

SCORE
NUMBER RIGHT: ITEMS 1-20 .....

PART 2: VOCABULARY

DIRECTIONS: Each item in this test consists of a definition followed by five words, one of which fits the definition. Work rapidly, but carefully.

IF THE ANSWERS ARE TO BE RECORDED IN THIS BOOKLET, find the word defined, underline it, and place its number in the parentheses at the right. Study the following example:

Sample: A short story used to teach some truth or moral lesson

(1) novel (2) tradition (3) parable
(4) epic (5) sermon.....(3)

IF THE ANSWERS ARE TO BE RECORDED ON SEPARATE ANSWER SHEETS, read each item, find the word defined, note its number, and blacken the space corresponding to the number on the answer sheet with the special pencil which your examiner gave you. Make *heavy, black, glossy marks.* Study the example.

Sample: A short story used to teach some truth or moral lesson

(1) novel (2) tradition (3) parable
(4) epic (5) sermon.....

Space number 3 has been blackened because "A short story used to teach some truth or moral lesson" is a parable.

Your first answer is to be recorded in space number 21 of the answer sheet even if you did not finish all of the questions on the previous part.

If you have any questions about the directions, *ask them now;* if not, wait for the signal to turn to the next page.

21. Group of persons united for some purpose
(1) clan (2) organization (3) brotherhood (4) partnership (5) religion..( )

22. A soft shoe or sandal of deerskin or other leather worn by North American Indians
(1) wattle (2) moccasin (3) sac (4) monolith (5) slipper.....( )

23. A group of sentences which belong together
(1) paragraph (2) declension (3) auxiliary (4) poem (5) anthem.....( )

24. A word used instead of a noun
(1) adverb (2) conjunction (3) pronoun (4) subjunctive (5) adjective....( )

25. A substance giving off a sweet smell when burned
(1) furze (2) delft (3) lappet (4) incense (5) pillion.....( )

26. A claim on property given to a person who has loaned money to protect him in case the money is not repaid when due
(1) insurance (2) mortgage (3) debt (4) depreciation (5) bill.....( )

27. The circulation of fresh air through a room so as to replace foul air
(1) filtration (2) illumination (3) elimination (4) ventilation
(5) atmosphere .....( )

28. Reddish brown coating on iron and steel formed by oxidation
(1) shellac (2) lubricant (3) temper (4) scale (5) rust.....( )

29. The rubbing of one thing against another
(1) friction (2) osmosis (3) fusion (4) abrasion (5) oxidation.....( )

30. Long pole of wood or steel set upright on a ship to hold the sails and rigging
(1) rudder (2) halyard (3) mast (4) hawser (5) boom.....( )

31. A word used in asking a question
(1) declarative (2) interrogative (3) subjunctive (4) idiom (5) interjection.( )

32. Distance around a circle
(1) diameter (2) radius (3) pi (4) circumference (5) perimeter.....( )

33. The band of colors formed when a beam of light is broken up by being passed through a prism or by some other means
(1) stratum (2) pigment (3) spectrum (4) magnetic field (5) lamina.....( )

34. A number which is to be multiplied
(1) product (2) aliquot (3) multiplicand (4) addend (5) multiplier.....( )

Go on to the Next Page

35. A trial or test to find out something
(1) experiment (2) logic (3) deliberation (4) exploration (5) inference..( )

36. The art or science of finding a ship's position and course
(1) navigation (2) direction (3) compass (4) meridian (5) location.....( )

37. The power or right of refusing to approve a legislative enactment
(1) veto (2) pardon (3) impeachment (4) edict (5) recall.....( )

38. Syllable, syllables, or word put at the beginning of a word to change its meaning
(1) prefix (2) hyphen (3) stem (4) suffix (5) phrase.....( )

39. The amount taken off the price
(1) selling price (2) commission (3) share (4) formula (5) discount.....( )

40. To begin a line of print further from the edge than the other lines
(1) invert (2) omit (3) indent (4) delete (5) revise.....( )

41. Word that means the same as or nearly the same as another word
(1) homonym (2) idiom (3) antonym (4) synonym (5) analogy.....( )

42. A fight against government
(1) anarchy (2) rebellion (3) propaganda (4) massacre (5) communism...( )

43. The ringing of a bell at a fixed hour in the evening as a signal to put out fires and lights
(1) taps (2) reveille (3) curfew (4) toll (5) vespers.....( )

44. Deciding what disease a person has by studying his symtoms
(1) diagnosis (2) corroboration (3) consideration (4) emaciation
(5) disinfection .....( )

45. Beliefs, opinions, customs or stories handed down from parents to children
(1) endowment (2) tradition (3) covenant (4) heredity (5) patronage.....( )

46. The sum of the sides of a polygon
(1) area (2) boundary (3) circumference (4) perimeter (5) margin .....( )

47. A fear spreading throughout a multitude of people so that they lose control of themselves
(1) treason (2) propaganda (3) flight (4) panic (5) retreat.....( )

48. The system of inserting marks in writing or printing to make the meaning clear
(1) apostrophe (2) punctuation (3) objective (4) sequence (5) interjection.( )

Go on to the Next Page

49. The hardened remains or trace of an animal or plant
(1) nodule (2) chromatin (3) microphyle (4) mineral (5) fossil.....( )

50. An expression consisting of two terms
(1) equation (2) binomial (3) bilateral (4) dual (5) biannual.....( )

51. A number obtained by dividing one number by another
(1) dividend (2) quotient (3) divisor (4) product (5) remainder.....( )

52. An instrument for making distant objects appear nearer and larger
(1) stereoscope (2) microscope (3) reading glass (4) periscope
(5) telescope .....( )

53. The means by which relations between nations are managed
(1) assessment (2) acquisition (3) intervention (4) diplomacy
(5) enforcement .....( )

54. Short, wise saying used for a long time by many people
(1) myth (2) parable (3) lyric (4) legend (5) proverb.....( )

55. Property of a conductor that opposes the passage of an electric current
(1) repulsion (2) discharge (3) electrode (4) ionization (5) resistance...( )

56. Place where water is collected and stored for use
(1) pumping station (2) reservoir (3) water main (4) lake (5) dam.....( )

57. Dampness or moistness
(1) aridity (2) phosphorescence (3) dew point (4) evaporation
(5) humidity .....( )

58. The size of a plan or map compared with the size of what it represents
(1) scale (2) area (3) diameter (4) proportion (5) breadth.....( )

59. A violent contraction of the muscles
(1) mottle (2) relaxation (3) convulsion (4) repletion (5) convolution...( )

60. One of the six great masses of land on the earth
(1) continent (2) equatorial belt (3) hemisphere (4) mainland
(5) arctic zone.....( )

61. Verse of a poem
(1) rhyme (2) quatrain (3) canto (4)epic (5) stanza.....( )

62. The side of a right triangle opposite the right angle
(1) base (2) tangent (3) diagonal (4) hypotenuse (5) altitude.....( )

Go on to the Next Page

63. Plane figure having eight angles and eight sides
(1) quadrilateral (2) pentagon (3) octagon (4) decagon (5) hexagon....( )

64. Person who carries messages and makes announcements
(1) baton (2) herald (3) servant (4) foulard (5) jester.....( )

65. Union formed by agreement
(1) tyranny (2) alliance (3) resignation (4) annexation (5) surrender....( )

66. A single happening or group of happenings in a story
(1) episode (2) chapter (3) calamity (4) epilogue (5) preface.....( )

67. A machine for cleaning out or deepening a channel
(1) drill (2) hamper (3) dredge (4) bulldozer (5) schooner .....( )

68. A written grant of certain rights by a ruler or by a legislature
(1) edict (2) law (3) charter (4) inscription (5) decree.....( )

69. One or more persons sent, usually to the ruler or government of a country, with authority to make some special arrangement
(1) espionage (2) confederation (3) convention (4) embassy (5) army....( )

70. Reliable or genuine
(1) coherent (2) concise (3) scholarly (4) authentic (5) versatile.....( )

71. A detailed list of goods with their estimated worth
(1) inventory (2) merchandise (3) bill of lading (4) invoice (5) property.( )

72. Place where the water is shallow
(1) rapids (2) eddy (3) bay (4) reef (5) shoal.....( )

73. Unreasoning fear of what is unknown or mysterious
(1) terror (2) suspicion (3) superstition (4) alarm (5) cowardice.....( )

74. Buying and selling in large amounts between different places
(1) barter (2) exchange (3) commodity (4) commerce (5) industry.....( )

75. A final proposal or statement of conditions
(1) command (2) reenforcement (3) fiat (4) impressment (5) ultimatum..( )

76. Equality in weight, amount, force, or effect
(1) balance (2) gravity (3) pressure (4) buoyancy (5) atomic weight...( )

77. Of unknown authorship or agency
(1) anonymous (2) journalistic (3) ambiguous (4) hackneyed
(5) stereotyped .....( )

Go on to the Next Page

78. A four-sided plane figure with four right angles
(1) hexagon (2) trapezoid (3) quadrilateral (4) pyramid (5) rectangle..( )

79. One skilled in a number of languages beside his own
(1) diplomat (2) interpreter (3) grammarian (4) educator (5) linguist..( )

80. A band of gold, jewels, or flowers worn around the head as an ornament
(1) halbert (2) frieze (3) demijohn (4) replica (5) tiara.....( )

Wait for the Signal Before Going on

SCORE
NUMBER RIGHT:
ITEMS 21-80 .....

PART 3: COMPREHENSION

DIRECTIONS: This test consists of a series of passages on different topics. Each passage is followed by several questions. These questions concern the main ideas in the passages, important facts which are given, the order of events, and conclusions you can reasonably draw from the ideas in the passages. You are to *read each passage and then try to answer the questions which follow it.* If you do not remember the answer to a question, you may reread the passage to find it, but you will be able to complete the test more rapidly if you read carefully enough to answer the questions at once.

IF THE ANSWERS ARE TO BE RECORDED IN THIS BOOKLET, you are to choose the one of the four possible answers to each question that is correct, and place the number of that answer in the parentheses at the right. Study the following example.

Sample: The main idea of paragraph 1 in *Directions* is that:

(1) this is a test of vocabulary .....( )
(2) you are to read passages and answer questions on their meanings (2)
(3) you are to read each passage more than once.....( )
(4) this is a test to see how rapidly you can read.....( )

IF THE ANSWERS ARE TO BE RECORDED ON SEPARATE ANSWER SHEETS, you are to choose the one of the four possible answers to each question that is correct, note its number, and blacken the position corresponding to the number on the answer sheet with the special pencil which your examiner gave you. Make *heavy, black, glossy marks.* Study the following example:

Sample: The main idea of paragraph 1 in *Directions* is that:

(1) this is a test of vocabulary
(2) you are to read passages and answer questions on their meanings
(3) you are to read each passage more than once
(4) this is a test to see how rapidly you can read

Notice that the space under number two has been marked because the correct answer, "you are to read passages and answer questions on their meanings," has that number.

Your first answer is to be recorded on space 81 of the answer sheet even if you did not finish all of the questions in the vocabulary test.

If you have any questions about the directions, *ask them now;* if not, wait for the signal to turn to the next page.

THE INDUSTRIAL CHANGE GOES ON

ADVENT OF THE FACTORY. The Industrial Revolution has helped to increase our productivity. But what is more important, it has revolutionized the *lives* of people. From the very moment that hand-made goods gave way to machine-made articles, the old ways of living were ended. Even the first machines, although they weren't as intricate as ours today, were too big to fit in the front room of a cottage. They cost something to make, too. What was the result? A lot of machines were put in one building near a waterfall, and the people who once made goods by hand flocked to the factories to work. So began the factory system with which we are all familiar.

HOW CITIES BECAME SO BIG. The workers had to live near the factory. Cities grew up. For instance, in the United States at the time this country was founded, the largest cities—Philadelphia, Boston and New York—had only a few thousand people. But because of the changes wrought by manufacturing methods, there came greater and greater concentrations of people, until today over half of our population dwells in urban areas.

And with the mushroom growth of our cities came the unplanned, unsanitary, and unsightly slums. Wages were low, hours were long, and factories were unsafe and unclean. The Industrial Revolution brought problems as well as the hope for plenty.[1]

81. The main idea of the first paragraph is that

(1) the machines introduced by the Industrial Revolution were too large to fit into the front rooms of cottages.....( )
(2) the Industrial Revolution substituted machine-made articles for handmade goods.....( )
(3) the Industrial Revolution not only increased productivity but brought new ways of living.....( )
(4) the Industrial Revolution did much to increase productivity .....( )

82. The main idea of the second paragraph is that

(1) largely because of the factory system more than half of our population lives in cities.....( )
(2) the cities of today are far too big.....( )
(3) because of changes in manufacturing methods factories have become unsafe and unclean.....( )
(4) Philadelphia, Boston and New York are our leading manufacturing cities .....( )

83. People did not set up machines in their cottages because of

(1) unsightliness ..... ( )
(2) intricacy of their construction ..... ( )
(3) pride in hand work ..... ( )
(4) size and cost ..... ( )

84. The machines were put into a building by a waterfall because

(1) the force of falling water ran the machines ..... ( )
(2) electric power from the falls ran the machines ..... ( )
(3) pure drinking water was scarce ..... ( )
(4) there were few large buildings other than old mills ..... ( )

85. The rapid development of cities brought

(1) the Industrial Revolution ..... ( )
(2) a return to old ways of living ..... ( )
(3) the factory system ..... ( )
(4) slums ..... ( )

HOW ALEXANDER WON HIS WAR STEED

Philonicus brought the horse Bucephalas to Philip, offering to sell him for thirteen talents; but when they went into the field to try him, they found him so very vicious and unmanageable, that he reared up when they endeavored to mount him.

They were leading him away as wholly useless and untractable, when Alexander, who stood by, said, "What an excellent horse do they lose, for want of address and boldness to manage him!"

"Do you reproach," said Philip to him, "those who are older than yourself, as if you knew more, and were better able to manage him than they?"

"I could manage this horse," replied he, "better than others do."

"And if you do not," said Philip, "what will you forfeit for your rashness?"

"I will pay," answered Alexander, "the whole price of the horse."

At this the whole company fell a laughing; and as soon as the wager was settled amongst them, he immediately ran to the horse, and taking hold of the bridle, turned him directly toward the sun, having observed that he was afraid of the motion of his own shadow; then letting him go forward a little, and stroking him gently when he found him begin to grow eager and fiery, he let fall his upper garment softly, and with one nimble leap securely mounted him, and when he was seated drew in the bridle, and curbed him without either striking or spurring him. Presently, when

he found him free from all rebelliousness and only impatient for the course, he let him go at full speed, inciting him now with a commanding voice, and urging him also with his heel.

Philip and his friends looked on at first in silence and anxiety for the result, till seeing him turn at the end of his career and triumphing for what he had performed, they all burst into acclamations of applause; and his father shedding tears, it is said, for joy, kissed him as he came down from his horse, and in his transport, said, "O my son, look thee out a kingdom equal to and worthy of thyself, for Macedonia is too little for thee."[3]

86. The main idea of the whole passage is that

(1) Bucephalus was a horse hard to manage.....( )
(2) Philonicus played a trick on Philip by trying to sell him an unmanageable horse.....( )
(3) Alexander showed that Bucephalus could not be kept in a small country like Macedonia.....( )
(4) Alexander proved his horsemanship.....( )

87. The main idea of the last paragraph is that

(1) Alexander's father shed tears over the event.....( )
(2) the people watching Alexander applauded him.....( )
(3) anxiety turned to joy at Alexander's success.....( )
(4) Alexander came to the end of his career.....( )

88. When Alexander rode

(1) he used his voice and heel to urge Bucephalus on.....( )
(2) he brought the horse out of the bright sunlight.....( )
(3) he found Bucephalus too impatient to learn easily.....( )
(4) he gave the horse a few gentle strokes with his riding stick ( )

89. When the ride was over

(1) Alexander no longer had to work for a living.....( )
(2) Alexander's father said his son was too good for Macedonia .....( )
(3) Alexander's father drove him from the kingdom.....( )
(4) Alexander's father greeted him from his transport plane ( )

90. A conclusion which can be drawn from this passage is that

(1) Alexander's father was proud of him.....( )
(2) good horsemen make good kings.....( )
(3) Bucephalus was an unusually intelligent horse.....( )
(4) Philip and his friends were cowards.....( )

MARS, OBJECT OF SPACE PROBE

If you saw a brilliant star in the sky shining with a distinct reddish or orange red light, it would be Mars, Earth's neighbor planet. Because it is red, a color which has always been associated with war and destruction, this planet was named after Mars, the great god of war. Mars, legendary father of the Romans through his son Romulus – founder of Rome – according to ancient myths was highly honored and worshiped as the god of the blood red battle field.

Astronomers have been especially interested in Mars. When at the point in its orbit nearest the earth, it is only 48.6 million miles away and clearly visible to the unaided eye. Through a telescope it appears as a broad red globe resembling a fiery orange. At the poles patches of white are seen. This has led some astronomers to believe that the poles are covered with ice and snow. The rest of the surface of Mars has a reddish color except for dark greenish-blue patches. Markings which appear to be definite lines are also seen on this planet. These lines are spoken of as "canals," and their arrangement has led some astronomers to wonder whether they were not built by beings similar to ourselves.

Mars has two moons, one of which travels so fast in its orbit that it goes around the planet three times each day. It rotates on its axis once in 24 hours and 37 minutes, making a day there just 37 minutes longer than a day on earth.

Photographs sent back to Earth by Mariner IV have not completely eliminated the possibility of biological life on Mars. The space probe has sustained the possibility of water vapor, seasonal changes in vegetation and polar ice caps. Evidently the mean temperature of the red planet differs very little from that of Earth's Antarctica. Dr. Norman H. Horowitz of the California Institute of Technology points out that there are microbes and some flowering plants living in the cold climates of the Antarctic. However, other scientists doubt the existence of life because of lack of oxygen, scarcity of water, low atmospheric density and bombardment by solar and cosmic rays. Dr. Horowitz reminds us that plants and animals can and do adapt to hostile conditions. Thus the argument goes on regarding life, as we know it, on Mars. The final answer may depend upon information from future space probes.[9]

91. The main idea of the first paragraph is that
    (1) Mars is a planet named after the Roman God of War ( )
    (2) Mars is a reddish planet which can be seen with the naked eye ( )
    (3) Mars is a largely reddish planet whose colors and markings are of special interest to astronomers ( )
    (4) Mars is a white planet with red poles, greenish-blue patches, and probably man-made canals ( )

Go on to the Next Page

92. The main idea of the last paragraph is that
(1) the possibility of life on Mars has not been eliminated by space probes ( )
(2) the temperature of Antarctica is warmer than the average temperature of Mars ( )
(3) the space probes have proved that life does not exist on Mars ( )
(4) there can be no life on Mars because of the lack of oxygen and water ( )

93. The patches of white on Mars are thought by some astronomers to be
(1) clouds of white vapor and gas ( )
(2) snow covered mountain peaks ( )
(3) snow covered poles ( )
(4) the north pole of Mars ( )

94. One of the moons of Mars travels around the planet three times in a
(1) year ( )
(2) month ( )
(3) week ( )
(4) day ( )

95. Astronomers could determine the length of a day on Mars by noting the
(1) changing location of its poles ( )
(2) speed with which the moons of Mars revolve around it ( )
(3) time it takes for Mars to rotate on its axis ( )
(4) time it takes for the moons to go around Mars ( )

CHANGES IN AGRICULTURE

The great industrial changes brought on by the development of machinery have greatly affected American agriculture. After 1865 agriculture became more commercialized; the farmer obtained many of the things he needed from manufacturing centers. The farm area greatly increased, and prior to 1914 farm products were the most important part of the export trade. This was true especially in the period of the 1880's and 1890's, when farm surpluses were sent abroad to pay for our imports.

THE NEW AGRICULTURE. Following the War between the North and the South, agriculture had to undergo considerable change. The farmer, during the colonial period, produced largely for a home market, and the farm was usually a self-sufficient unit. Nearly all of the food, wearing apparel, and other materials needed by the farmer and his family were produced either on the farm or in the local community. After the war, however, the farmer produced more crops to be sold in other parts of the

nation and in foreign countries. Farming had become more of a commercial enterprise. The farmer harvested his crop and produced his products not for himself alone, but also for the rest of the world.

This change came about largely because of the rise of the industrial system, which built up factories in large cities whose population had to get most of its food supply from the farmer, while the manufacturing centers produced machinery and other products which the farmer bought.[4]

96. The main idea of the first paragraph is that
    (1) the great industrial changes brought on by the development of machinery have greatly affected American agriculture ( )
    (2) by 1914 farm products had become the most important part of America's export trade ( )
    (3) the period of the 1880's and 1890's saw a tremendous increase in the export of farm products ( )
    (4) in the 1880's and 1890's, especially, American agriculture was greatly expanded by activities in the foreign market ( )

97. The main idea of the second paragraph is that
    (1) during the colonial period, farms were usually self-sufficient units ( )
    (2) after the War between the North and South, most of the farmers' crops were sold ( )
    (3) following the War between the North and South, agricultural methods were greatly changed ( )
    (4) after 1865, the farmer changed from a producer for a home market to a producer for both home and world markets ( )

98. The growth of industry and cities brought about
    (1) great industrial changes ( )
    (2) a need for more food and wearing apparel ( )
    (3) expansion of farmers' markets ( )
    (4) self-sufficiency for farms ( )

99. The needs of the colonial farmer were fulfilled by
    (1) commercial enterprises in the cities ( )
    (2) his farm and local community ( )
    (3) the foreign market ( )
    (4) the home market ( )

100. The growth of cities in America
    (1) created both goods and a market ( )
    (2) produced a need as well as self-sufficiency ( )
    (3) forced a foreign market for farm goods ( )
    (4) caused the neglect of the local community ( )

SCORE
NUMBER RIGHT:
ITEMS 1-20
PLUS 81-100 .....

Permissions

1. Bienow, Robert (Howard Anderson). *Calling All Citizens*. New York: Houghton Mifflin Company, 1944. Part 3, Unit 8, Chapter 24, page 465.
2. Wellons, Blanche; McTurnan, Lawrence; Smith, Henry L.; Abney, Louise. *Expanding Literary Interests*. New York: Laidlaw Brothers, 1942. p. 458-60.
3. Lake, Charles H.; Henry P.; Watson, Louis E. *Exploring the World of Science*. New York: Silver, Burdett and Company, 1934. Chapter XI. p. 169-70.
4. Wirth, Fremont P. *The Development of America*. New York: American Book Company, 1937. Unit 8. p. 425, 500.

COLLEGE ENGLISH PLACEMENT TEST

Oscar M. Haugh
Professor of Education, University of Kansas

James I. Brown
Professor of Rhetoric, University of Minnesota

HOUGHTON MIFFLIN COMPANY • BOSTON
New York • Atlanta • Geneva, Illinois • Dallas • Palo Alto

TO THE STUDENT

This placement test in English is intended to reveal (a) how well you understand the basic structure of the English language and (b) how effectively you can manipulate that language.

To familiarize yourself with the kinds of items in the test, study the following sample exercises:

Sample Exercise 1:

Read the boxed sentence below and decide whether a correction needs to be made.

> Greg is the boy who works in the summer as a forest ranger.

After the proper number on your answer form, blacken

A - if a comma should be inserted after boy.
B - if who should be changed to whom.
C - if works should be changed to work.
D - if summer should be capitalized.
E - if NO CHANGE needs to be made.

Even a quick examination shows that the correct response to Sample Exercise 1 is Choice E.

Sample Exercise 2:

Which word best fills the blank in the sentence below?

Our plane was _____ because of rain.

A. postponed
B. delayed
C. blocked
D. hindered
E. retarded

Delayed is obviously the best response. It is the only choice that precisely conveys the meaning intended and that fits the context.

Sample Exercise 3:

Which sentence below expresses the thought most effectively? After the proper number on your answer form, blacken the letter of the sentence you choose.

A. Because of the rain, our picnic was postponed.
B. The postponement of our picnic was because it was raining.
C. Due to the fact that it was raining, our picnic had to be postponed.
D. Being as it was raining, our picnic was postponed.
E. Having rained, our picnic had to be postponed.

Choice A is the best response; it expresses the thought clearly in the fewest words.

As you work through the test, indicate your answer to each item just as you have done for these three sample exercises. If you wish to change an answer, completely erase your first mark; then blacken the answer you want counted. If you need to make notes of any kind, use the scratch paper provided by the examiner.

The test has a time limit of forty (40) minutes. You are not expected to know the answer to every item in the test, but you should try to answer each one. However, if you have no idea about the answer to an item, GO ON IMMEDIATELY to the next one. Avoid spending an undue amount of time on any one item. Work along at a steady pace, for it will be to your advantage to finish the test.

When the signal is given, turn the page and begin the test. Work until time is called or until you complete the test. If you finish before time is called, CHECK YOUR WORK.

DIRECTIONS: The boxed items are in a scrambled order. On scratch paper, organize them to produce a clear, understandable paragraph. Then answer the questions that follow.

I. Overslept
II. Missed breakfast
III. Room seemed dark
IV. Alarm went off
V. Opened eyes
VI. Decided clock was fast

3. Where would you place Detail I?

A. First
B. Second
C. Third
D. Fourth
E. Fifth

4. Where would you place Detail II?

A. Second
B. Third
C. Fourth
D. Fifth
E. Last

5. Where would you place Detail III?

A. First
B. Second
C. Third
D. Fourth
E. Last

6. Where would you place Detail IV?

A. First
B. Second
C. Third
D. Fifth
E. Last

7. Where would you place Detail V?

A. First
B. Second
C. Fourth
D. Fifth
E. Last

8. Where would you place Detail VI?

A. First
B. Third
C. Fourth
D. Fifth
E. Last

DIRECTIONS. Most of the following sentences can be rearranged into a clear, understandable theme of two paragraphs. On scratch paper, rearrange the numbers for such a theme. Then answer the questions at the top of page 3

I. In 1250 Roger Bacon, a philosopher and a scientist, wrote that air, like water, had an upper surface and that if man wanted to fly, he would have to create an apparatus that would float in the air.

II. After they had made a huge balloon and filled it with smoke and hot air, it rose a thousand feet.

III. Probably the first record of man's desire to fly appears in the Greek myth of Daedalus and Icarus.

IV. Over four centuries later de Lana used Bacon's idea and designed a kind of air boat to be propelled by oars, but it was never built.

V. This was not the same Bacon, who, some think, wrote Shakespeare's plays.

VI. However, credit for inventing the first aerostat – the balloon – must go to Stephen and Joseph Montgolfier.

VII. No one knows when man first had the desire to fly.

VIII. The first step toward creating the aerostat or lighter-than-air craft occurred in 1766, when Cavendish discovered hydrogen and proved that it was lighter than air.

IX. Thus the aerostat became a reality, and from it man went on to develop the airplane and the spaceship.

X. Four months later they made man's first successful ascent into the atmosphere.

PART ONE

DIRECTIONS: Assume that you have sufficient information to write a satisfactory paper on any one of the topics below

1. Which one of these topics could be handled best in an essay of about 500 words?

   A. How to write a personal cheque

   B. Canadian economic problems

   C. "Money is the root of all evil." Discuss

   D. Man's exploitation of man

   E. How to cure the world's inflation.

2. Which one of these topics could be handled best in a research paper of about 500 words?

   A. The 69 books of the Bible

   B. The major beliefs of modern Islam

   C. Christianity

   D. The church in today's world

   E. Religion in North America

MAKE NO MARKS IN THIS BOOKLET

9. With which sentence should the theme begin?

A. Sentence I
B. Sentence III
C. Sentence VII
D. Sentence VIII
E. Sentence IX

10. Which sentences should be included in the first paragraph?

A. Sentences II, IV, V, VI, VIII
B. Sentences I, III, IV, VII
C. Sentences III, VI, VIII, IX
D. Sentences III, IV, V, VII, X
E. Sentences I, II, IX, X

11. With which sentence should the second paragraph begin?

A. Sentence I
B. Sentence III
C. Sentence VII
D. Sentence VIII
E. Sentence IX

12. With which sentence should the theme end?

A. Sentence I
B. Sentence IV
C. Sentence V
D. Sentence VI
E. Sentence IX

13. Which sentence is irrelevant and so should be omitted?

A. Sentence II
B. Sentence III
C. Sentence IV
D. Sentence V
E. Sentence VII

14. Which one of the following sentences does NOT contain a transitional word?

A. Sentence II
B. Sentence III
C. Sentence VI
D. Sentence IX
E. Sentence X

MAKE NO MARKS IN THIS BOOKLET.

V

15. To combine the ideas in Part Y and Part Z into a single sentence, which transitional connective is best?

Y	Connective	Z
I have never seen an art museum	A. ; therefore, B. , for C. ; however, D. ; in the last analysis, E. ; in any case,	I live in Podunk.

16. To combine the details under Part Y and Part Z into a single paragraph, which transitional connective is best?

Y	Connective	Z
The contractor took too long to finish the building. Plaster began to crack right away. The heating system soon broke down	A. In the first place, B. However, C. Evidently, D. For example, E. Nevertheless,	someone was taking graft.

DIRECTIONS Each of the following items, 17-24 contains four sentences expressing the same general thought. Decide which sentence in each group expresses the thought MOST EFFECTIVELY.

17. A. His theme is the longest of those handed in so far.
B. His theme is longer than any theme handed in so far.
C. His theme is the longer of all those handed in so far.
D. So far, his theme is longer than the other students.

18. A. Before he proposed, he wanted to meet the girl's family whom he hoped to marry.
B. He wanted before he proposed to meet the family of the girl he hoped to marry.
C. Before he proposed, he wanted to meet the family of the girl he hoped to marry.
D. He wanted to meet the family of the girl he hoped to marry before he proposed.

19. A. He was so bald it made people think he was older than he was.
B. He was bald, which made people think he was older than he was.
C. Because he was bald, people thought he was older than he was.
D. Being bald, people thought he was older than he was.

20. A. Just because a woman is beautiful is no reason why she should be arrogant.
B. Being beautiful, there's no excuse for a woman's being arrogant.
C. Being beautiful is no excuse for being arrogant.
D. Just because a woman's beautiful, there's no excuse for being arrogant.

MAKE NO MARKS IN THIS BOOKLET

21 A. We don't tear your laundry with machinery; we do it carefully by hand.
B. No machinery will tear your laundry, instead we do it carefully by hand.
C. Doing your laundry carefully by hand, no machinery will tear it.
D. We don't tear your laundry with machinery; we wash it carefully by hand.

22 A. She spoke to me in a very cool manner when we met each other yesterday.
B. When we met yesterday, I was spoken to in a very cool manner by her.
C. Her manner was very cool when meeting and speaking to me yesterday.
D. Yesterday she greeted me coolly.

23 A. Printed in the directions, I see that the oil can be removed with gasoline.
B. The directions say that the oil can be removed by anyone with gasoline.
C. The directions say to remove the oil with gasoline.
D. In the directions it says that the oil can be removed with gasoline.

24 A. The natives are patient and industrious, and they have the habit of showing courtesy to tourists.
B. The natives are patient, industrious, and courteous to tourists.
C. The natives are patient and industrious and showing courtesy to tourists.
D. The natives are patient and industrious, while showing courtesy to tourists.

DIRECTIONS: In items 25-28 Part I expresses ideas in choppy, repetitious sentences. Decide which sentence in Part II expresses these same ideas MOST EFFECTIVELY.

25. I: There was a man. He stood on a railroad bridge. The bridge was in northern Florida. The man looked down. He looked at the water. It was fifteen feet below him. It was swift.

II: A. A man in northern Florida, who was standing on a railroad bridge, looked down into the water which was swift fifteen feet below him.

B. Fifteen feet below a man who stood on a railroad bridge in northern Florida was some swift water at which he was looking down.

C. Looking down into the swift water fifteen feet below him was a man in northern Florida who stood on a railroad bridge.

D. A man stood on a railroad bridge in northern Florida, looking down into the swift water fifteen feet below.

_____

26. I: The man's hands were not in their usual position. They were behind his back. The wrists were tied. There was a cord around them.

II: A. The man's hands were behind his back, the wrists bound with a cord.

B. Not in their usual position, the man's hands were behind his back, and a cord bound his wrists.

C. With his hands behind his back, a cord bound his wrists.

D. His wrists were bound with a cord, and his hands were behind his back.

_____

27. I: There was a rope. It encircled the man's neck. It was fairly tight. It was attached to a cross-timber. The timber was stout. The timber was above the man's head.

II: A. A rope, which was attached to a stout cross-timber above the man's head, closely encircled his neck.

B. A rope closely encircled his neck, which was attached to a stout cross-timber above his head.

C. Closely encircling his neck was a rope which was attached to a stout cross-timber which was above his head.

D. A rope encircled his neck, and it was fairly tight, and it was attached to a stout cross-timber above him.

_____

MAKE NO MARKS IN THIS BOOKLET.

28. I: There were some loose boards. They were laid on the railroad ties. They supplied a footing for the man. They also supplied a footing for his executioners.

II: A. Laid on the railroad ties, the man stood on some loose boards which supplied a footing for him and his executioners.

B. Some loose boards laid on the railroad ties provided a footing for the man and his executioners.

C. Some loose boards laid on the ties supporting the rails provided a footing for the man and his executioners.

D. On the railroad ties were some loose boards, and they provided a footing for the man and his executioners.

_____

DIRECTIONS: In each item below, choose the answer that BEST completes the statement. Then blacken the appropriate oval on your answer sheet.

29. Conspicuous is to hidden as PROXIMITY is to

A. distance
B. elegance
C. bravery
D. closeness
E. locality

30. Genuine is to authentic as EXOTIC is to

A. exciting
B. unusual
C. glamorous
D. sensual
E. lovely

31. Humorous is to serious as INCREDULOUS is to

A. rare
B. doubting
C. healthful
D. unconquerable
E. gullible

32. Retort is to reply as CONCUR is to

A. subdue
B. agree
C. support
D. object
E. return

33 Audacity is to cowardice as FIASCO is to

A. failure
B. intentation
C. success
D. architecture
E. temperament

34. Conspiracy is to plot as CANDOR is to

A. frankness
B. sweetness
C. loyalty
D. anger
E. secrecy

35 Jovial is to merry as ITINERANT is to

A. homeless
B. nutritious
C. wandering
D. serene
E. pastoral

36 Gallant is to courteous as FLAGRANT is to

A. trivial
B. outrageous
C. pungent
D. hot
E. colorful

37 Entice is to tempt as SCRUTINIZE is to

A. examine
B. ponder
C. criticize
D. scowl
E. observe

38 Obvious is to evident as PRESUMPTUOUS is to

A. thoughtful
B. scornful
C. anticipating
D. timid
E. overbold

MAKE NO MARKS IN THIS BOOKLET.

IX

DIRECTIONS: Decide which one of the boxed words below BEST fills the blank in each sentence that follows.

A. averted	D. ostracized
B. ejected	E. discharged
C. banished	

39 The new government _____ the former dictator forever from the country of his birth.

40 Some exchange students contend that they feel _____ from the social life of the colleges they attend.

41 In all, five accountants have been _____ from the company.

42 A major disaster was _____ only by the foresight of the city planning commission.

DIRECTIONS: For each of the eight descriptive sentences below, blacken oval

A · if the underlined word in the sentence creates an UNFAVORABLE impression.

B · if the underlined word in the sentence creates a FAVORABLE impression.

43 He's articulate.

44 He's notorious.

45 He's infamous.

46 He's eminent.

47. He's garrulous.

48. He's parsimonious.

49. He's intrepid

50. He's pompous

51. He's obese

52. He's temperamental

DIRECTIONS: Study the alternate complements to each KEY SENTENCE and answer the questions about them.

KEY SENTENCE I: It was

A. a lie.
B. a falsehood.
C. an untruth.
D. a fib.
E. a misrepresentation.

53. Which underlined word most strongly suggests anger and condemnation?

54. Which underlined word most strongly suggests the trivial?

55. Which underlined word has the widest range of application?

MAKE NO MARKS IN THIS BOOKLET.

KEY SENTENCE II: He tends to

A. procrastinate.
B. dally.
C. lag.
D. dawdle.
E. loiter.

56 Which underlined word most strongly implies blameworthy delay?

57 Which underlined word most strongly implies aimless wasting of time?

58. Which underlined word best suggests failure to keep up with one's companions?

DIRECTIONS: Assume that to debe is an English infinitive. Decide which of its forms would BEST complete the sentences below.

A. debe	=	present form
B. dobe	=	past form
C. doben	=	past participle
D. debes	=	third person singular, present tense
E. debing	=	present participle

59 He now_____horses for riding.

60 Last summer we were lucky enough to spend our vacation at the lake, where we_____every day.

61 We'd like to know what you have_____.

62 Many children today_____well because they have had to start at an early age.

63 Having_____the record, the runner fell to the ground, exhausted.

64 _____the bad news gently, he spoke with restraint.

DIRECTIONS: In items 65-85 below, decide whether a correction should be made at each underlined and numbered word or mark of punctuation. In each case, blacken oval

A if a CAPITAL letter should be changed to a small letter or a small letter to a CAPITAL.

B if the FORM of the word should be changed to conform to standard patterns of usage.

C if a mark of PUNCTUATION is needed, or if the PUNCTUATION mark should be deleted. (Consider apostrophes and hyphens marks of punctuation.)

D if the SPELLING should be corrected.

E if NO CHANGE should be made.

Some students say, "I can go to college because my (65) father (66) has enough money to send me." Its (67) true that money and social tradition are (68) important, but considerations like this are (69) not the only thing (70) that counts, (71) Given todays' (72) conditions, without good marks you'll have a hard time getting in (73) any college. Even the most out of the way (74) institutions have regulations. Such as (75.76) a record of subjects taken in high school, having a satisfactory (77) grade average, and submiting (78) a recomendation (79) from your principal. (80)

Between you and I, (81) the best advice is this: Be serious (82) and take your work serious. (83) Anybody who doesn't do their (84) best in high school probably won't do well in college. In fact, a student who lays (85) down on the job in high school has little chance of succeeding in college.

MAKE NO MARKS IN THIS BOOKLET.

END OF PART ONE.
IF TIME PERMITS,
CHECK YOUR WORK.

COLLEGE ENGLISH PLACEMENT TEST

PART TWO

You have twenty-five minutes to complete a composition on one of the topics listed below. Choose the topic that interests you and then develop it clearly and effectively. Allow yourself five to ten minutes to collect and organize your ideas. Consider preparing a working outline for yourself. Then allow from fifteen to twenty minutes for writing your essay. Finally, allow a few minutes at the end to check your writing.

1. I learned _____ the hard way.

2. How to _____ (handle a blind date, or mow the lawn, or clean my room.)

3. Define a certain type of person such as a perfectionist, a slob, a chauvinist, an intellectual, or a miser.

4. Compare or contrast strict parents and permissive parents.

agd

Form C

GRADES 12-14

SSHA

Survey of Study Habits and Attitudes

Brown—Holtzman

Do not open this booklet until you are told to do so. Wait for the examiner's instructions.

DO NOT MAKE ANY MARKS IN THIS BOOKLET

Copyright 1953, © 1965.

All rights reserved. No part of this questionnaire may be reproduced in any form of printing or by any other means, electronic or mechanical, including, but not limited to, photocopying, audiovisual recording and transmission, and portrayal or duplication in any information storage and retrieval system, without permission in writing from the publisher.

The Psychological Corporation, New York

Printed in U.S.A.

77-208TB 9-951009

The questionnaire contained in this booklet has been designed for use with answer forms published or authorized by The Psychological Corporation. If other answer forms are used, The Psychological Corporation takes no responsibility for the meaningfulness of scores.

DIRECTIONS

The purpose of this survey is to furnish an inventory of study habits and attitudes to serve as a foundation for self-improvement. If taken seriously, this inventory can help you obtain a better understanding of how to study properly. If you will honestly and thoughtfully mark all of the statements on the pages that follow, you will be able to learn many of your study faults. The value of this survey to you will be in direct proportion to the care with which you mark each statement. Since your answers will be treated with the strictest confidence, feel free to answer all questions frankly.

You will mark your answers on a separate answer sheet. Make no marks on this booklet. There are 100 statements in this questionnaire. For each statement a five-point scale is provided for indicating whether you rarely, sometimes, frequently, generally, or almost always do or feel as the statement suggests. You are to rate yourself on each statement by marking the space on your answer sheet that represents your answer choice. Thus, for example, you would mark space R on your answer sheet if you *rarely* follow the procedure described or if you feel that the statement is *rarely* true for you. In marking your answers, be sure that the number of the statement agrees with the number on the answer sheet. Make sure that your marks are heavy and black. Make no stray marks on the answer sheet and erase completely any mark that you wish to change.

To aid you in answering this questionnaire, the terms have been defined on a percentage basis as follows:

R – RARELY means from 0 to 15 per cent of the time.
S – SOMETIMES means from 16 to 35 per cent of the time.
F – FREQUENTLY means from 36 to 65 per cent of the time.
G – GENERALLY means from 66 to 85 per cent of the time.
A – ALMOST ALWAYS means from 86 to 100 per cent of the time.

Remember, you are asked to rate yourself, not in accordance with what you think you *should* do or feel, or as you think *others* might do or feel, but as you yourself are in the habit of doing and feeling. When you cannot answer a statement on the basis of actual experience, mark the statement according to what you would be most likely to do if the situation should arise.

There are no "right" or "wrong" answers to these statements, and there is no time limit for this questionnaire. Work as rapidly as you can without being careless, and do not spend too much time on any one statement. Please do not omit any of the statements.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

1. When my assigned homework is extra long or unusually difficult, I either quit in disgust or study only the easier parts of the lesson.
2. In preparing reports, themes, term papers, etc., I make certain that I clearly understand what is wanted before I begin work.
3. I feel that teachers lack understanding of the needs and interests of students.
4. My dislike for certain teachers causes me to neglect my school work.
5. When I get behind in my school work for some unavoidable reason, I make up back assignments without prompting from the teacher.
6. Difficulty in expressing myself in writing slows me down on reports, themes, examinations, and other work to be turned in.
7. My teachers succeed in making their subjects interesting and meaningful to me.
8. I feel that I would study harder if I were given more freedom to choose courses that I like.
9. Daydreaming about dates, future plans, etc., distracts my attention from my lessons while I am studying.
10. My teachers criticize my written reports as being hastily written or poorly organized.
11. I feel that teachers allow their personal like or dislike for a student to influence their grading unduly.
12. Even though I don't like a subject, I still work hard to make a good grade.
13. Even though an assignment is dull and boring, I stick to it until it is completed.
14. I give special attention to neatness on themes, reports, and other work to be turned in.
15. I believe that the easiest way to get good grades is to agree with everything your teachers say.
16. I lose interest in my studies after the first few days of a new semester.
17. I keep all the notes for each subject together, carefully arranging them in some logical order.
18. I memorize grammatical rules, definitions of technical terms, formulas, etc., without really understanding them.
19. I think that teachers like to exercise their authority too much.
20. I believe that teachers truly want their students to like them.
21. When I am having difficulty with my school work, I try to talk over the trouble with the teacher.
22. I hesitate to ask a teacher for further explanation of an assignment that is not clear to me.
23. I feel that teachers are too rigid and narrow-minded.
24. I feel that students are not given enough freedom in selecting their own topics for themes and reports.
25. I lay aside returned examinations, reports, and homework assignments without bothering to correct errors noted by the instructor.
26. I get nervous and confused when taking an examination and fail to answer questions to the best of my ability.
27. I think that teachers expect students to do too much studying outside of class.
28. Lack of interest in my school work makes it difficult for me to keep my attention focused on assigned reading.
29. I keep my place of study business-like and cleared of unnecessary or distracting items such as pictures, letters, mementos, etc.
30. I have trouble with the mechanics of English composition.
31. When explaining a lesson or answering questions, my teachers use words that I do not understand.
32. Unless I really like a course, I believe in doing only enough to get a passing grade.
33. Telephone calls, people coming in and out of my room, "bull-sessions" with my friends, etc., interfere with my studying.

GO ON TO THE NEXT PAGE.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

34. In taking notes, I tend to take down material which later turns out to be unimportant.

35. My teachers fail to give sufficient explanation of the materials they are trying to teach.

36. I feel confused and undecided as to what my educational and vocational goals should be.

37. It takes a long time for me to get warmed up to the task of studying.

38. I do poorly on tests because I find it hard to think clearly and plan my work within a short period of time.

39. I feel that teachers are overbearing and conceited in their relations with students.

40. Some of my courses are so uninteresting that I have to "force" myself to do the assignments.

41. I am unable to concentrate well because of periods of restlessness, moodiness, or "having the blues."

42. I skip over the figures, graphs, and tables in a reading assignment.

43. I believe that teachers secretly enjoy giving their students a "hard time."

44. I believe that having a good time and getting one's full share of fun out of life is more important than studying.

45. I put off writing themes, reports, term papers, etc., until the last minute.

46. After reading several pages of an assignment, I am unable to recall what I have just read.

47. I think that teachers tend to talk too much.

48. I believe that teachers tend to avoid discussing present-day issues and events with their classes.

49. When I sit down to study I find myself too tired, bored, or sleepy to study efficiently.

50. I have difficulty in picking out the important points of a reading assignment—points that later appear on examinations.

51. I feel that teachers try to distribute their attention and assistance equally among all their students.

52. I feel that my grades are a fairly accurate reflection of my ability.

53. I waste too much time talking, reading magazines, listening to the radio, watching TV, going to the movies, etc., for the good of my studies.

54. When in doubt about the proper form for a written report, I refer to an approved model to provide a guide to follow.

55. The illustrations, examples, and explanations given by my teachers are too dry and technical.

56. I feel that it is not worth the time, money, and effort that one must spend to get a college education.

57. My studying is done in a random, unplanned manner—is impelled mostly by the demands of approaching classes.

58. When reading a long textbook assignment, I stop periodically and mentally review the main points that have been presented.

59. I feel that teachers tend to be sarcastic towards their poorer students and to ridicule their mistakes excessively.

60. Some of my classes are so boring that I spend the class period drawing pictures, writing letters, or daydreaming instead of listening to the teacher.

61. "Extracurricular activities"—dating, clubs, athletics, fraternity and sorority activities, etc.—cause me to get behind in my school work.

62. I seem to accomplish very little in relation to the amount of time I spend studying.

63. I feel that teachers make their courses too difficult for the average student.

64. I feel that I am taking courses that are of little practical value to me.

65. I utilize the vacant hours between classes for studying so as to reduce the evening's work.

66. I can concentrate on a reading assignment for only a short while before the words become a meaningless jumble.

67. I think that football coaches contribute more to school life than do the teachers.

GO ON TO THE NEXT PAGE.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

68. I believe that the sole purpose of education should be to equip students to make a living.

69. Problems outside of school—financial difficulties, being in love, conflict with parents, etc.—cause me to neglect my school work.

70. I copy the diagrams, drawings, tables, and other illustrations that the instructor puts on the blackboard.

71. I feel that teachers think too much about grades and lose sight of the real objectives of education.

72. I strive to develop a sincere interest in every course I take.

73. I complete my homework assignments on time.

74. I lose points on true-false or multiple-choice examinations because I change my original answer only to discover later that I was right the first time.

75. I think that students who ask questions and offer comments in class are only trying to impress the teacher.

76. The prestige of having a college education provides my main motive for going to college.

77. I like to have a radio, record player, or television set turned on while I'm studying.

78. When preparing for an examination, I arrange facts to be learned in some logical order—order of importance, order of presentation in class or textbook, order of time in history, etc.

79. I believe that teachers intentionally schedule tests on the days following important athletic or social activities.

80. I believe that a college's football reputation is just as important as its academic standing.

81. With me, studying is a hit-or-miss proposition depending on the mood I'm in.

82. I am careless of spelling and the mechanics of English composition when answering examination questions.

83. I believe that one way to get good grades is by using flattery on your teachers.

84. I think that it might be best for me to drop out of school and get a job.

85. I study three or more hours per day outside of class.

86. Although I work until the last possible minute, I am unable to finish examinations within the allotted time.

87. I feel that it is almost impossible for the average student to do all of his assigned homework.

88. I feel that the things taught in school do not prepare one to meet adult problems.

89. I keep my assignments up to date by doing my work regularly from day to day.

90. If time is available, I take a few minutes to check over my answers before turning in my examination paper.

91. I feel that the ridiculous assignments made by teachers are the main reason for student cheating.

92. Prolonged reading or study gives me a headache.

93. I prefer to study my lessons alone rather than with others.

94. When tests are returned, I find that my grade has been lowered by careless mistakes.

95. I feel that students cannot be expected to like most teachers.

96. I feel like cutting classes whenever there is something I'd rather do or whenever I need to cram for a test.

97. At the beginning of a study period I organize my work so that I will utilize the time most effectively.

98. During examinations I forget names, dates, formulas, and other details that I really do know.

99. I believe that teachers enter their profession mainly because they enjoy teaching.

100. I believe that grades are based upon a student's ability to memorize facts rather than upon the ability to "think" things through.

THE PSYCHOLOGICAL CORPORATION
INCORPORATED
1921

Study Habits Checklist

	Almost Always	More than Half of the Time	About Half of the Time	Less than Half of the Time	Almost Never
Previewing					
1. Do you read over the table of contents of a book before you begin studying the book?					
2. Before studying an assignment in detail, do you make use of any of the clues in the book such as headings, illustrations, and chapter summaries?					
Reading					
3. Do you try to get the meaning of important new words?					
4. As you read an assignment, do you have in mind questions that you are actually trying to answer?					
*5. Do you look for the main ideas in what you read?					
6. Are you able to read without saying each word to yourself?					
7. In addition to reading the required textbooks, do you read other materials for your courses?					
Notetaking While Reading					
8. As you read your assignments, do you take notes?					
9. Do you review your notes soon after taking them?					
Remembering					
10. Do you try to find a genuine interest in the subjects you study?					
*11. Do you try to understand thoroughly all material that you should remember?					

Study Habits Checklist

By Ralph C. Preston and Morton Botel

(Please print)

Name_____ Date_____
last first

Grade or year_____ Age_____ Sex M F
yrs. mo. encircle one

School_____

To the Student:

Read each question in the Checklist. Think carefully about each question, and answer it as accurately as you can.

Place an X in the column that best describes your habit. For example, the first question is:

	Almost Always	More than Half of the Time	About Half of the Time	Less than Half of the Time	Almost Never
1. Do you read over the table of contents of a book before you begin studying the book?				X	

If, in your case, this happens to be true only sometimes, place an X as shown in the example.

SRA Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611
A Subsidiary of IBM

Copyright © 1957, 1967, by Science Research Associates, Inc.
Printed in the U.S.A. All rights reserved.

Reorder No. 5-1291

/

	Almost Always	More than Half of the Time	About Half of the Time	Less than Half of the Time	Almost Never
12. When studying material to be remembered, do you try to summarize it to yourself?					
13. Do you distribute the study of a lengthy assignment over several study sessions?					
14. Do you try to relate what you are learning in one subject to what you learn in others?					
Report Writing					
15. Before writing a report, do you collect information by doing research in the library?					
16. Before writing a report, do you make an outline?					
17. In writing a report, do you clearly indicate the main idea of each paragraph?					
18. In writing a report, do you rewrite your first drafts?					
Listening and Taking Class Notes					
19. During class, do you search for main ideas?					
*20. In class, do you take notes?					
21. Do you revise class notes soon after class?					
Preparing for Examinations					
*22. Before an examination, do you review the important facts and principles?					
23. Do you combine important notes on your textbook and from class into a master outline in studying for a major examination?					
24. Do you make up examination questions that you think will be asked, and answer them?					
25. In studying for an examination, do you distribute your time over at least two sessions?					

	Almost Always	More than Half of the Time	About Half of the Time	Less than Half of the Time	Almost Never
Taking Examinations					
*26. In taking examinations, do you read the directions and the questions with care?					
27. At the start of an examination, do you make plans for suitably distributing your time among the questions?					
28. In taking an essay examination, do you outline your answer to a question before you start answering it?					
29. At the end of an examination, do you proofread or check your answers?					
Planning Time					
*30. Do you keep up to date in your assignments?					
31. Do you have a study-schedule plan in which you set aside time each day for studying?					
32. Do you divide your study time among the various subjects to be studied?					
Arranging Physical Setting					
33. Is the space on your study desk or table large enough?					
34. Is your study desk or table kept neat, that is, free of distracting objects?					
*35. Do you study in a quiet place—one that is free from noisy disturbances?					
36. Do you study by yourself rather than with others?					
37. When you sit down to study, do you have the equipment and materials you need?					

SELF-CONCEPT SCALE

NAME _____

STUDENT NUMBER _____

AGE _____ SEX _____

DIRECTIONS:

The descriptive adjectives listed below apply to you as a student, as a friend, as a member of the community. These adjectives can be used to help you describe yourself "as you are now", and to describe how you would like to be.

There are no right or wrong answers, as each person will view himself in different ways. Answer the questions according to your feelings. It is important for you to give your own honest answers.

Think carefully and put a check under the category that fits you AS YOU ARE NOW. You might check either NEARLY ALWAYS or ABOUT HALF THE TIME or JUST NOW AND THEN. You should then think about how you see your ideal self and check under the appropriate heading under AS I WOULD LIKE TO BE.

SAMPLE:

AS I AM NOW			ADJECTIVE	AS I WOULD LIKE TO BE		
nearly always	about half the time	just now and then		nearly always	about half the time	just now and then
☐	☑	☐	truthful	☑	☐	☐

THIS IS THE WAY I AM NOW			ADJECTIVE	THIS IS THE WAY I'D LIKE TO BE		
nearly always	about half the time	just now and then		nearly always	about half the time	just now and then
☐	☐	☐	tongue-tied	☐	☐	☐
☐	☐	☐	persuasive	☐	☐	☐
☐	☐	☐	goal-oriented	☐	☐	☐
☐	☐	☐	consistent	☐	☐	☐
☐	☐	☐	punctual	☐	☐	☐
☐	☐	☐	anxious	☐	☐	☐
☐	☐	☐	organized	☐	☐	☐
☐	☐	☐	conscientious	☐	☐	☐
☐	☐	☐	friendly	☐	☐	☐
☐	☐	☐	literate	☐	☐	☐
☐	☐	☐	honest	☐	☐	☐
☐	☐	☐	thoughtful	☐	☐	☐
☐	☐	☐	articulate	☐	☐	☐
☐	☐	☐	careful	☐	☐	☐
☐	☐	☐	fair	☐	☐	☐
☐	☐	☐	mean	☐	☐	☐
☐	☐	☐	lazy	☐	☐	☐
☐	☐	☐	ambitious	☐	☐	☐
☐	☐	☐	smart	☐	☐	☐
☐	☐	☐	polite	☐	☐	☐
☐	☐	☐	kind	☐	☐	☐
☐	☐	☐	selfish	☐	☐	☐
☐	☐	☐	helpful	☐	☐	☐
☐	☐	☐	good	☐	☐	☐
☐	☐	☐	co-operative	☐	☐	☐
☐	☐	☐	cheerful	☐	☐	☐
☐	☐	☐	jealous	☐	☐	☐
☐	☐	☐	sincere	☐	☐	☐
☐	☐	☐	studious	☐	☐	☐
☐	☐	☐	loyal	☐	☐	☐
☐	☐	☐	likeable	☐	☐	☐
☐	☐	☐	a good student	☐	☐	☐
☐	☐	☐	useful	☐	☐	☐
☐	☐	☐	dependable	☐	☐	☐
☐	☐	☐	bashful, shy	☐	☐	☐
☐	☐	☐	happy	☐	☐	☐
☐	☐	☐	popular	☐	☐	☐
☐	☐	☐	open-minded	☐	☐	☐
☐	☐	☐	depressed	☐	☐	☐
☐	☐	☐	competent	☐	☐	☐
TOTAL CHECKS						
___	___	___		___	___	___

APPENDIX B

Letters to Students with Test Results

Champlain Regional College

St. Lambert-Longueuil Campus:
600 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC,
J4P 3P8
TEL. (514) 672-7360

READING TEST RESULTS

May 30, 1980

Dear Student,

Your scores on the Diagnostic Reading Test, which you sat for on May 10, are printed on the label below. An explanation of the scores is given beneath the label.

If your total raw score is less than 75% you indicate a weakness in some of the skills which were tested. You may wish to work on improving your reading ability by enrolling in a reading efficiency course, English 603-104; by registering for the college reading programme whose contents will be explained to you in a letter which will be sent to you in October; or by asking for tutoring in reading at the Student Learning Centre.

The test was a diagnostic test. The results have been given to you to make you aware of your strengths and weaknesses in reading. There are several options available to help you improve. Use them!

READING TEST RESULTS

RATE	refers to the speed with which you read, in terms of words per minute.
Comp. 1	refers to the level of comprehension you achieved on the 20 questions which followed the timed story.
R/C	refers to your rate of comprehension, which is derived by multiplying your rate by the percentage you achieved on the comprehension test.
Comp. 2	refers to your scores on the 20 questions based on short paragraphs which tested for main idea.
Vocab. 2	refers to the number of vocabulary items you attempted, out of a possible 60.
Vocab. 1	refers to the number of these items which you got correct.
Vocab. 3	is your percentage correct.
Total	is a score out of 100, which combines Comp. 1 + Comp. 2 + Vocab. 1.
Percentile	ranks you against other students. In each group of 100, it tells you how many students were below you.

WRITING TEST RESULTS

Champlain Regional College

St. Lambert-Longueuil Campus:
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P3
TEL. (514) 672-7880

May 30, 1980

Dear Student,

The results of the College English Placement Test which you took on May 10th are listed below. Your choice of English course should be based on these results. Register for the option checked below.

1. English Composition for students who speak English as a second language required:
   - ☐ a) 603-204
   - ☐ b) 603-304 (more advanced)

2. English Composition required (first language)
   - ☐ 603-190

3. English Composition advised but not compulsory
   - ☐ 603-190

4. Take any English course which interests you.
   - ☑

RESULTS

PART 1: Objective test result.

PART 2: Essay result

☐	1. a) b)	below 40%
☐	2.	40 - 60%
☐	3.	60 - 75%
☑	4.	75 - 100%

English Department

agd

Champlain Regional College

St. Lambert-Longueuil Campus:
600 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P8
TEL. (514) 672-7360

October 18, 1979

SURVEY OF STUDY HABITS AND ATTITUDES RESULTS

Dear Student,

Your scores on the Survey of Study Habits and Attitudes test, which you took on May 12, are printed on the label below. This test is composed of seven scales DA, WM, SM, TA, EA, SA and SO. An explanation for each of these seven scales is given on the back of your answer sheet. Both your raw score (RS) and the corresponding percentile (PC) for each of the seven scales, are recorded on the label below. To find out what each score means, consider only the percentile. Your percentile for each scale tells you how you compare with other college freshmen. For example, if your percentile on the first scale, DA, was 30, this would mean that 30% of the college freshmen received lower scores than yours on the DA scale, while 70% of college freshmen received higher scores than yours on this scale. On the back of your answer sheet, your percentile score is marked and you will be able to see, for each scale, just how far your score is from the 50% percentile, or average college freshman student's score. Thus, by comparing your score with the average score for each scale, you can see where your strengths and weaknesses lie. Note that your score on the last scale, SO, is a combination of all of the scales on the test, and will provide you with an overall measure of your study habits and attitudes. For further explanations, see the back of your answer sheet.

See back for Study Habits Checklist

Champlain Regional College

St. Lambert-Longueuil Campus:
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P2
TEL. (514) 672-7360

STUDY HABITS CHECKLIST RESULTS

Your overall raw score on the Study Habits Checklist, which you also took on May 10 is _____. To find out what this score means, consult the table below:

RAW SCORES AND THEIR CORRESPONDING PERCENTILE RANKS

COLLEGE FRESHMEN

RAW SCORES

PERCENTILE RANK	MEN	WOMEN
100	123-138	129-139
90	116-122	123-128
80	111-115	119-122
70	107-110	115-118
60	103-106	111-114
50	99-102	108-110
40	94- 98	104-107
30	89- 93	99-103
20	80- 88	91- 98
10	35- 79	52- 90

First, locate your raw score under either the column marked "men" or "women". Now, locate the corresponding percentile rank which appears to the left of your score. For example, if you were a male college freshman and your raw score was 104, you would locate 104 under the column "men", in the interval 103-106. The corresponding percentile rank would therefore be 60. What this means is that this student did better than 60% of the college freshmen, but did worse than 40% of the sample. If you would like further information regarding your specific strengths and weaknesses on this checklist, please drop by the Student Learning Centre, located in B-301.

1k

APPENDIX C

Colour Code System

COLOUR CODE

READING SKILLS - (Green-Green)

Comprehension	(Green-Yellow)
General Reading Techniques.....	(Green-Navy)
Perception	(Green-Red)
Previewing/Skimming & Scanning .	(Green-Brown)
Speed Techniques	(Green-White)
Reading to Discover Author's Tone & Purpose	(Green-Black)

WRITING SKILLS - (Yellow-Yellow)

The Sentence	(Yellow-Red)
a) Basic Patterns	(Yellow-Red-Yellow)
b) Fragments	(Yellow-Red-Navy)
c) Run On	(Yellow-Red-Red)
d) Phrases & Clauses	(Yellow-Red-Brown)
e) Reference of Pronouns	(Yellow-Red-White)
f) Agreement ..... - Subject/verb - Noun/pronoun	(Yellow-Red-Black)
g) Tense	(Yellow-Red-Light Blue)
Paragraph & Essay	(Yellow-Brown)
a) How to write a term paper General	(Yellow-Brown-Yellow)
b) Topic Sentence/ Thesis Sentence	(Yellow-Brown-Navy)
c) Unity	(Yellow-Brown-Red)
d) Coherence	(Yellow-Brown-Brown)
e) Development & Support	(Yellow-Brown-White)
f) Organization of Essay	(Yellow-Brown-Black)
g) How to write a bibliography	(Yellow-Brown-Light Blue)
h) How to footnote	(Yellow-Brown-Green)
Punctuation	(Yellow-Orange)
a) Comma/Dash	(Yellow-Orange-Yellow)
b) Semi Colon/Colon	(Yellow-Orange-Navy)
c) Apostrophe/Quotation Marks/ Parenthesis	(Yellow-Orange-Red)

.../2

SURVIVAL SKILLS - (Navy-Navy)

Concentration & Organizational Memory	(Navy-Yellow)
How to Study	(Navy-Red)
a) General	(Navy-Red-Yellow)
b) Note taking	(Navy-Red-Navy)
c) For Tests	(Navy-Red-Red)
d) Science	(Navy-Red-Brown)
e) Humanities	(Navy-Red-White)
f) Social Science	(Navy-Red-Black)
g) Languages	(Navy-Red-Light Blue)
h) Psychology	(Navy-Red-Green)
i) Math	(Navy-Red-Grey)
Dictionary Skills	(Navy-Brown)
Library Skills	(Navy-Orange)
How to determine the readability of a book .	(Navy-Black)
Use of Idioms in English	(Navy-Light Blue)
Vocabulary Development	(Navy-White)
a) General	(Navy-White-Yellow)
b) Spelling	(Navy-White-Navy)
c) Prefixes	(Navy-White-Red)
d) Suffixes	(Navy-White-Brown)
e) Roots	(Navy-White-Orange)
f) Vocabulary in Context	(Navy-White-Black
How to Reduce Anxiety	(Navy-Green)
a) Test Anxiety	(Navy-Green-Yellow)
b) Relaxation Training	(Navy-Green-White)

:mjb
9/78

APPENDIX D

Course Policy Statement:

"To teach is to learn"

CHAMPLAIN REGIONAL COLLEGE
St. Lambert-Longueuil Campus

COLLEGE COMPLEMENTARY COURSE 905-101-78
Susan Woodruff and Susan Kerwin

"To teach is to learn": Academic Tutoring in Theory and Practice

REFERENCES:

Allen, Vernon Children as Teachers selected articles

Kerwin, Susan A Guide to Behaviour Change

Kerwin, Susan and Susan Woodruff Addendum: A Manual for Tutors

Woodruff, Susan A How to Manual for Tutors of High School Students in Reading

RATIONALE:

Many studies done in the past several decades have demonstrated that one of the most effective ways to learn is to teach. Variations on this approach have utilized "high risk," bright or average students as tutors for any other students needing remediation in basic skills learning and/or in learning how to study more effectively. Results of this research have shown that the tutor as well as the tutee gains from the tutoring experience. It appears that the organization used by the tutor to structure the material for the tutoring sessions reinforces and strengthens his own knowledge of the content.
(Allen, 1976; Schwartz et al. 1977).

COURSE DESCRIPTION:

It is the aim of this course to provide the college community with trained volunteers who will be available to tutor other collegians in either basic skills or in approaches to effective study techniques in content areas. The tutors will be given fifteen hours of instruction in techniques for tutoring others and in methodology. They will then be assigned to the student learning centre where they will be available to help other students. Some of these trained students could also be made available to content area instructors who wish to use their services as tutors in their specific discipline.

COURSE OBJECTIVES:

1. To present and teach basic communication skills used in the establishment of interpersonal relationships in the tutoring situation.
2. To reintroduce and reinforce techniques appropriate for the development of high levels of competence in the basic skill areas of reading, writing and study habits, in the tutor.

../2

3. To present to the tutor methodology appropriate to the teaching of the basic skills to other students intent on improving their basic reading, writing and study behaviour.

4. To present appropriate structures designed to help the tutor organize an individualized tutoring programme adapted to the needs of any student wishing to improve his basic reading, writing and study behaviour.

5. To provide the tutor with continual feedback about his personal competence in the basic skills.

6. To provide the tutor with continual feedback about his performance as a tutor.

METHODOLOGY:

1. Students will be given intensive instruction in the area of inter-personal relations in order to facilitate their contact with tutees.

2. Students will review the principles of good reading and study behaviour and the rules of good writing. They will apply these techniques in exercises designed to reinforce these skills.

3. Students will see demonstrations of how to apply the above listed skills in the tutoring situation. They will view video-taped sequences of tutor-tutee encounters as well as act out various approaches in classroom role-playing.

4a Students will be introduced to and made familiar with theresources available in the learning centre.

4b Students will be instructed in techniques for assessing and diagnosing individual problems in the basic skill areas of reading, writing and study skills.

4c Students will be taught how to plan and organize lessons appropriate for the needs of the individual tutees, based on the assessment and the resources available.

5. Participants will be supervised during the semester, with guidance given by the instructors at spot-checks of the actual tutoring, live or on video-tape, through weekly meetings and from actual journal entries about the tutoring sessions, in order to ensure that everyone receives continuous feedback.

EVALUATION:

Students will be evaluated according to the following criteria:

1. They must attend and participate in all training sessions, lasting approximately 10 hours at the beginning of the semester.

2. Students will be expected to apply the appropriate tutoring techniques by working with other students <u>for a minimum of twenty-five hours</u> throughout the semester.

.../3

3. They must demonstrate their competence in planning and carrying out individualized tutoring sessions by completing a tutor log for each lesson. Shortly after a tutor-tutee have met, the tutor is expected to show the instructor a detailed programme of remediation including materials and exercises, for each assigned tutee. These will be shown to the instructor at the weekly meeting and accumulated for grading purposes. Grading will be based on structure of the lessons and clarity of presentation.

4. Students will be evaluated on the level of tutor and student through spot-checks of their sessions and by their response at the weekly meetings, in order to provide them with continual feedback about their performance in both roles. <u>These weekly meetings</u>, which are to be held at the mutual convenience of instructor and student <u>are a compulsory component of the course</u>. Failure to attend repeatedly will result in an EA.

5. Students are expected to complete a final report which synthesizes all their activities in the term for every tutee they worked with for more than 3 hours.

6. During the training sessions, students will be asked to devise a tutoring programme for 3 hypothetical students, lasting 2 weeks. These lessons should demonstrate that the tutor knows how to apply the principles of psychology explained in the training sessions to a "real" situation; as well as a knowledge of the basic reading, writing and study skills and materials in the Student Learning Centre which can be used.

<u>MARK DISTRIBUTION</u>:

Tutoring (minimum of 25 hours) and final report(s):	60%
Preparation for weekly meetings (including long-range tutee programmes)	25%
First assignment	15%

APPENDIX E

Weekly Contract Form

Completed Final Report

Completed Sessional Log Sheet

TUTEE'S WEEKLY CONTRACT FORM

WEEK NUMBER _____

DATES _____

WEEKLY GOAL:

THIS WEEK I WILL SPEND _____ HOURS STUDYING AND READING.

SIGNED: TUTOR _____

TUTEE _____

DATE _____

WEEKLY CHART OF STUDYING & READING

ACTIVITY	TIME SPENT	DATE

FINAL REPORT

TUTOR Daniel Chripko

TUTEE Kim Archambault

REFERRED BY _____ REFERRED SELF ✓

SUBJECT AREA Chemistry 101

TOTAL NUMBER OF SESSIONS 8 TOTAL NUMBER OF HOURS 8 hours

DATES	AMOUNT OF TIME
March 20, 1980	1 hr.
March 24, 1980	1 hr.
March 27, 1980	1 hr.
March 31, 1980	1 hr.
April 10, 1980	1 hr.
April 21, 1980	1 hr.
April 24, 1980	1 hr.
April 28, 1980	1 hr.

DATE May 2, 1980 TUTOR'S SIGNATURE Anne Chripko

II COMMON OBJECTIVES

Discuss any common objectives that were agreed upon by you and your tutee at the beginning of the tutoring programme.

Kim had only a one-year course in chemistry in high school and therefore she was probably not well prepared for CEGEP chemistry. As a result, she failed Chemistry 101 last semester and she is taking it over now. She said she would like to get over 75% - possibly into the 80's - on the term. Some of the specific problem areas that she felt she had problems with and that she would like to go over during the subsequent sessions are the following: concentration problems, the balancing of redox reactions (oxidation - reduction reactions), Heitler-London Energy diagrams, and Born-Haber Cycles. She would also like some explanations of the rate laws of reactions (kinetics) and intermolecular, intramolecular forces. A subsequent pre-diagnostic test for Chemistry 101 revealed that her knowledge of concentration problems is actually better than she thought it was and that the problems are actually quite simple. Furthermore, as concentration problems are dealt with only in Chemistry 111 and, later on , in Chemistry 201, we will not concern ourselves with concentration problems during the sessions.

III BASELINE DATA

Summarize your tutee's results on the various skill and attitudinal diagnostic tests that were administered at the beginning of your tutoring programme.

Kim's reading rate was very poor in the pre-tests; and although her story comprehension was much more respectable (15/20), her overall rate of comprehension is still at a very low level. Her paragraph comprehension is lower than her story comprehension; this may be expected since reading slowly may perhaps cause one to see certain details, but the overall comprehension or overview of the material read (as is reflected in the paragraph comprehension score will be weakened. Her vocabulary score of 44/60 is about average, but when it is considered that she attempted only 46, she got in fact 96% of them right. (The fact that she only attempted 46 may be related back to her low reading rate).

Her writing score indicates that she may have some problems with this area, but certainly it would not be a major stumbling block.

Although her delay avoidance and work method scores are quite low on the SSHA, her teacher and education acceptance scores fared even worse.

Her Self-Concept Scale score indicates that her own description of what she feels of herself now is very close (106 to 119) of what she thinks the ideal situation should be.

Her study habits are very poor indeed (1st decile on the Study Habits Checklist).

IV DIAGNOSTIC TESTS

Indicate below both the pre and post test results for your tutee that were administered at the beginning and at the end of your tutoring programme.

NAME OF TEST: ORT Reading Test

PRE-TEST RESULTS:

rate	161	
story comprehension	15/20	
R/C	121	TOTAL: 72%
paragraph comprehension	13/20	
vocabulary power	44/60 46 attempted	

POST-TEST RESULTS:

rate	223	
story comprehension	16/20	
R/C	178	TOTAL: 87%
paragraph comprehension	18/20	
vocabulary power	53/60	

NAME OF TEST: CEPT Writing Test (objective part)

PRE-TEST RESULTS:

68%

POST-TEST RESULTS:

69%

IV DIAGNOSTIC TESTS

Indicate below both the pre and post test results for your tutee that were administered at the beginning and at the end of your tutoring programme.

NAME OF TEST: SSHA

PRE-TEST RESULTS:

DA	WM	SH	TA	EA	SA	SO
40	40	35	15	20	15	25

POST-TEST RESULTS:

DA	WM	SH	TA	EA	SA	SO
30	70	45	55	70	65	55

NAME OF TEST: Self-Concept Scale

PRE-TEST RESULTS:

NOW	IDEAL
106	119

POST-TEST RESULTS:

NOW	IDEAL
107	117

IV DIAGNOSTIC TESTS

Indicate below both the pre and post test results for your tutee that were administered at the beginning and at the end of your tutoring programme.

NAME OF TEST: Study Habits Checklist

PRE-TEST RESULTS:

88 1st decile

POST-TEST RESULTS:

96 2nd decile

NAME OF TEST: Chemistry 101 diagnostic test

PRE-TEST RESULTS:

78%

POST-TEST RESULTS:

see General Assessment of Progress section

V BREAKDOWN OF MATERIALS AND LESSON PLANS

List below any materials that were used during the tutoring sessions and list in detail the various purposes for which each was used.

MATERIALS	PURPOSE
General Chemistry Principles and Structure by Brady and Humiston and accompanying study guide, by Brady and Sottery	for referred in order to find exact explanations to certain topics like trends in inter- and intra-molecular forces, and for diagramatic aids to tutoring
Kim's course objectives, suggested exercises, and notes	Kim is responsible for all the material that they contain
Chemistry 101 diagnostic test	to locate problem-areas and for a general evaluation or outlook on her chemistry knowledge
my old Chemistry 101 quizzes and tests	the quizzes (12 of them in all) contain numerous information and test Kim's knowledge of many different areas, while the tests show the general types of questions that Kim may expect to encounter on her own chemistry or final exam

VI TUTEE MATERIALS AND PURPOSE

List below any materials that were used by the tutee in between tutoring sessions and also the purpose for which these were used. (Refer to the weekly contracts).

MATERIALS	PURPOSE

VII GENERAL ASSESSMENT OF PROGRESS

Attach sessional log plans, and include an analysis of your tutee's progress in any of the skill and/or attitudinal areas.

(Note: pre and post-test data should also be compared in this section).

Her reading rate increased slightly from the pre-test to the post-test sessions (161 to 123) but it is still very low. Interestingly enough, the rest of Kim's DRT scores are very good and seem to indicate that her slow reading rate has no ill effect on her comprehension of either details or main ideas. (The reason why her R/C score is low is only due to her low reading rate score). There is an especially remarkable improvement in her paragraph comprehension score (13/20 to 18/20) as well as in her vocabulary score. Her moderately strong total score on the pre-DRT of 72% jumped to a very impressive 87% on the post-DRT. Although we did spend some time on reading skills in the sessions, this general improvement in her reading skills is more likely attributable to an improvement in that area through her general college work. The objective writing test scores seem to indicate that her writing skills were about the same in both her pre-test and post-test (68 to 69%). There is an overall remarkable improvement in her SSHA scores, in which all areas' scores were significantly higher in the post-test (with the only exception being her delay avoidance score) so that her overall study orientation score increased from 25 to a 55. Her Self-Concept Scale scores remained almost identical in the pre- and post-tests, a fact that would seem to show that her personal evaluation of herself as well as what she believed she would ideally be, remained unchanged. Her Study Habits Checklist score, which was extremely poor on the pre-test, improved slightly on the post-test so that she increased her decile from 1st to 2nd. Apparently, the time we spent on study techniques did not have an overwhelming effect on her post-Study Habits Checklist score.

Kim did a Chemistry 101 diagnostic test at the beginning of the tutoring program on which she got 78%. However, that test actually contained only about 50% of Chemistry 101 material. If only the Chemistry 101 material is taken into account, then she received about 95% right on that diagnostic test. Kim found all the questions on that test, with the exception of the ones dealing with concentrations, to be quite simple. In fact, the concentration problems were easier than she thought. But, as was mentioned in the "COMMON OBJECTIVES" section, we did not do any problems dealing with concentration during the sessions. The other areas that were mentioned in the COMMON OBJECTIVES were all covered extensively during the sessions and Kim showed a great amount of progress in them, without encountering any major stumbling blocks. All these topics (i.e. kinetics, molecular forces, energy diagrams, etc.) were included in Kim's class tests on which she did very well - 96% and most likely over 80% (this latter test was in two parts, one of which is still yet to come). We also went over numerous exercises on those topics and she did them without much difficulty. As a result, I did not administer a post-Chemistry 101 diagnostic test. Kim always came to the sessions prepared, asked specific questions, and even took notes on certain material.

SECTION VIII RECOMMENDATIONS

A) For the referring teacher. (Referred self) ____

RECOMMENDATIONS
B) For the student

(sent to the student)

SESSIONAL LOG SHEET

TUTOR Daniel Chripko DATE March 20, 1980 TIME SPENT 1 hr.

TUTEE Kim Archambault SUBJECT AREA Chemistry 101

ACTIVITY/SKILL AREA	MATERIALS/REFERENCE	PROGRESS/PERFORMANCE
- Introduction - Deciding on common objectives - Evaluation of present knowledge in chemistry - Theory of hybridization - Atomic energy levels - Drawing Lewis structure	Brady and Humiston, General Chemistry (textbook), and its study guide; Kim's notes and first test. Chemistry 101 diagnostic test	Kim hopes to get over 75% in the course. Some of the specific areas she feels she has problems with are concentration problems and balancing redox reactions.

TUTOR'S COMMENTS: Kim had only a one-year course in chemistry in high school and therefore she was not well-prepared for CEGEP chemistry. As a result, she failed Chemistry 101 last semester. Before this session, I attempted to find Kim's pre-test results but did not find them all. Kim will try the diagnostic test and perhaps we will go over it during the next session.

APPENDIX F

Assignment for Tutors

CHAMPLAIN REGIONAL COLLEGE
St. Lambert-Longueuil Campus

ENGLISH 905-101 Winter Semester 1980
"To teach is to Learn"

ASSIGNMENT 1

This assignment is designed to give you very worthwhile experience for your future tutoring. Although some of you have experience with high school students there is somewhat of a difference in tutoring Cegep students. The objective of this assignment is to have you become familiar with making lesson plans for your tutee, dealing specifically with his/her problems in each subject area.

For each of the three tutees, provide the following information:

A: a cover sheet listing the results of these diagnostic pre-tests

1. percentile ranks on DRT
2. percentile ranks on SSHA
3. decile ranks on Study Habits Checklist
4. percentage on CEPT
5. now vs. ideal scores on Self-Concept Scale

AND

an outline of problem areas you will be working on.

B: The first five lesson plans of your tutoring programme.

C: A proper bibliography of the materials used.

STUDENT A: Jean has problems writing compositions. His spelling and vocabulary are very poor in comparison with other Cegep students.

STUDENT B: Bobby is a Pure and Applied Science student at Champlain. He is having a hard time understanding one certain subject - biology. No matter how much he studies, he cannot understand the material or pass his exams in biology. (Note: chemistry or physics or mathematics may be substituted for biology).

STUDENT C: Rhonda is having trouble completing her school work on time. She is never prepared for her classes and most of her assignments and papers are left incomplete. She is not doing well in any of her classes.

This assignment is due on Monday, February 11 during block 13.

APPENDIX G

Request for Tutoring Form

Referral Form

REQUEST FOR TUTORING

I WOULD LIKE TO BE TUTORED IN THE SUBJECT/SKILL AREA WHICH IS LISTED BELOW. PLEASE ARRANGE FOR ME TO BE MATCHED WITH A TUTOR AS SOON AS POSSIBLE. THANK YOU.

DATE_____

NAME_____

STUDENT NUMBER_____

TELEPHONE NUMBER_____

PROGRAMME (030, ETC.)_____

LOCKER NUMBER_____

PLEASE STATE BELOW, BRIEFLY, THE AREAS IN WHICH YOU FEEL YOU WOULD LIKE TO BE TUTORED AND EXPLAIN WHY OR HOW YOU KNOW THAT THIS IS A WEAK AREA FOR YOU.

_____

_____

_____

_____

_____

_____

_____

_____

PLEASE FILL OUT THE ATTACHED SCHEDULE WITH THE TIMES AT WHICH YOU ARE AVA.LABLE FOR TUTORING (ON THE REVERSE SIDE).

LK

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
STARTS AT 8:00	10	20	30	40	50
9:00	11	21	31	41	51
10:00	12	22	32	42	52
11:00	13	23	33	43	53
12:00	14	24	34	44	54
1:00	15	25	35	45	55
2:00	16	26	36	46	56
3:00	17	27	37	47	57
4:00	18	28	38	48	58
5:00	19	29	39	49	59

REFERRAL FORM

DATE: _____

INSTRUCTOR: _____

COURSE: _____ STUDENT NUMBER _____

STUDENT: _____ TELEPHONE NUMBER _____

REASON FOR REFERRAL: (Include areas needing improvement)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PLEASE ANSWER THE FOLLOWING QUESTIONS:

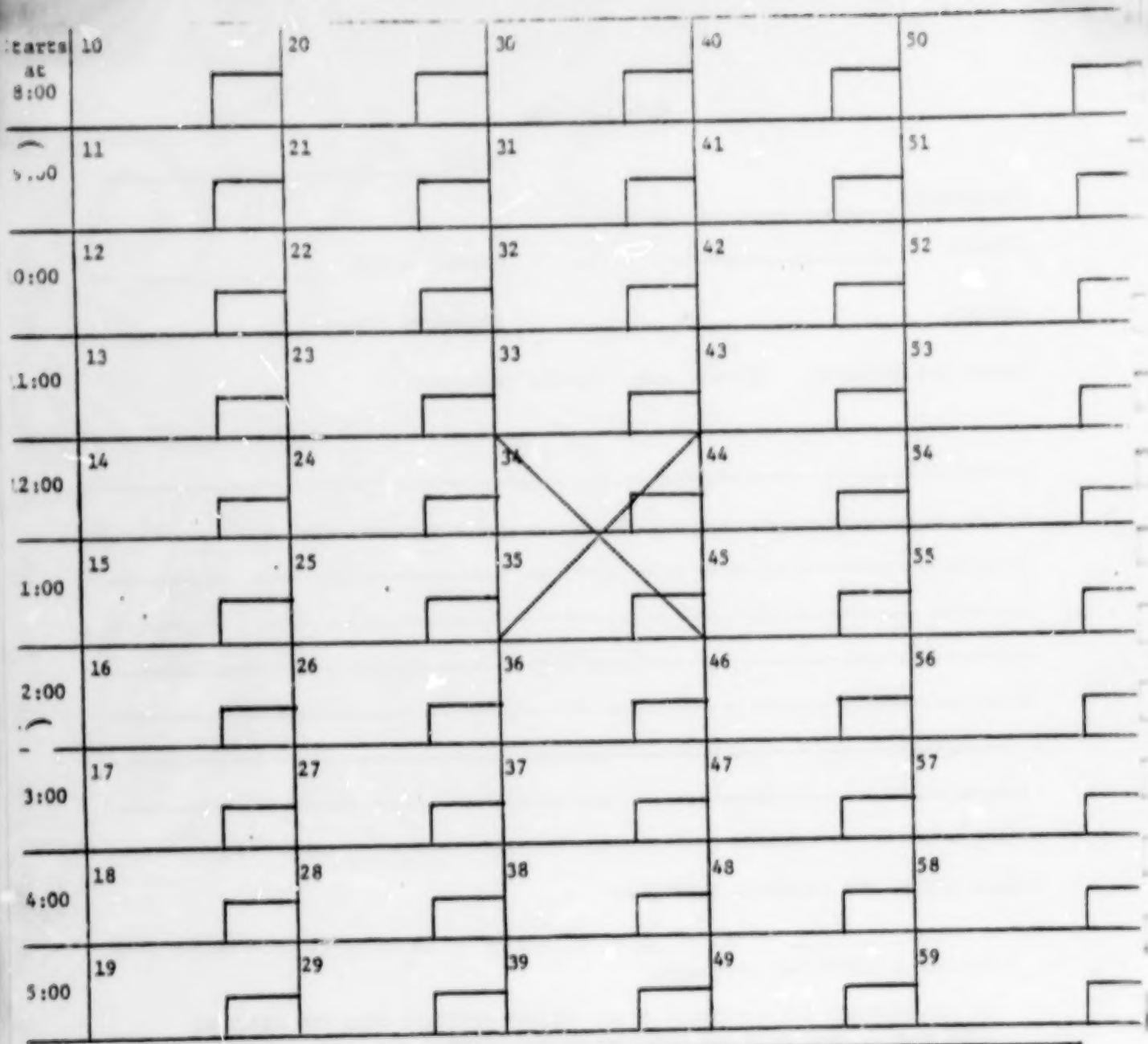
1. I would _____ would not _____ prefer to be involved in planning this student's individual programme.

   IF YOU ANSWERED AFFIRMATIVELY TO #1, PLEASE INDICATE WHEN YOU WOULD BE AVAILABLE TO MEET WITH THE LEARNING CENTRE TUTOR.

2. I will _____, will not _____ include this training as part of the student's evaluation.

3. This tutoring programme will _____ will not _____ constitute part of the required 3 hour class time.

On the reverse side of this sheet there is a copy of the schedule. Please ask the student to check off the times in which he/she is free to be tutored.



SEQUENCE NO.	COURSE AND LAB NUMBERS AND TITLES	TIME BLOCK NUMBERS

APPENDIX H

Tutor's Evaluation Questions

Tutee's Evaluation Questionnaire

SECTION VI GENERAL COMMENTS

In a page overview, please comment on each of the following and hand in the critique with the final report. This can, if you wish, be anonymous.

a) How adequate were the training sessions? Were they long enough, was the content appropriate? Did you feel that they gave you an adequate introduction to the materials and general organization of the Student Learning Centre?

b) Was the inclusion of the video-tape useful as a teaching tool? Did you use any of its contents while tutoring?

c) Did you feel that the initial assignments in English and psychology (i.e. planning the first five tutoring sessions for Students A, B and C) were helpful in orienting you to the tutoring?

d) Did you feel that it was useful to meet with your supervisor soon after being assigned a tutee to discuss the programme you would develop for your tutee and the materials you would use? Why or why not?

e) Was the supervision of your tutoring sessions adequate? Did you get enough guidance? Would you have wanted one of us to sit in on one of the actual tutoring sessions?

f) What is your general impression of the materials in the Student Learning Centre? What recommendations for additions would you make?

Thank you for including all of the above information in your critique. It is extremely important for us to get as much feedback as possible. Please include any other information you wish to comment on.

Have a great vacation. Good luck in all your future endeavours. We feel you did good work.

Champlain Regional College

St. Lambert-Longueuil Campus
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC,
J4P 3P8
TEL. (514) 672-7580

TUTEE'S QUESTIONNAIRE

TUTEE:

TUTOR:

NO. OF HOURS TUTORED:

SUBJECT AREA:

SELF-REFERRED:_____ OR TEACHER-REFERRED:_____

1. How did you hear about the Learning Center?

2. Could you tell me what you think is the most important thing that you learned during the time you were being tutored?

If no. 2 not specific enough

3. Did the tutoring help you in improving your:

A. Study Skills? If so, how?

B. Reading Skills? If so, how?

Champlain Regional College

St. Lambert-Longueuil Campus:
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P8
TEL. (514) 672-7360

C. Writing Skills? If so, how?

D. Competence in the specific subject area of _____

If so, how?

4. Did you find you were able to apply skills learned in one area to your other subjects?

If so, how?

5. Do you feel that your attitude towards school or towards yourself as a student has changed in any way, as a result of the tutoring?

6. Was the experience generally, worthwhile?

Explain.

Champlain Regional College

St. Lambert-Longueuil Campus:
600 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P2
TEL. (514) 672-7360

7. Would you come back to be tutored again?

8. Would you recommend this tutoring to your friends?

9. Would you ever consider tutoring someone yourself?

APPENDIX I

Letters to Students re: Post-Testing

Champlain Regional College

St. Lambert-Longueuil Campus
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P2
TEL. (514) 672-7360

Dear

Champlain Regional College has been the recipient of a government grant for the year 1979-1980. The purpose of the research for which the grant was awarded is to assess the level of reading and writing, study habits and attitudes of students in CEGEP. The results of the research will be used to aid in the development of programmes throughout the college system.

You have been selected to aid in this research. In previous months you sat for tests of reading, writing and study skills. We now wish you to come to a post-testing session, which will be held on January 16, 1980. We realize that the testing is a time-consuming process, as is registration. We are therefore making provision for you to write these tests in the morning and then to register in the afternoon. This special registration period has been set up before the regular registration and you will thus benefit from a wider selection of open courses.

You will, therefore, receive an appointment to register on January 16, unless you inform the registrar's office by December 7, Friday, that you will be unable to attend that day. We thank you for your co-operation.

Sincerely,

Alex Potter,
Academic Dean

Brian O'Boyle,
Registrar

Susan Kerwin-Boudreau

Susan Woodruff

P.S. Please note that you will only be able to register on January 16 if you have taken the tests or if you have special permission.

Champlain Regional College

St. Lambert-Longueuil Campus:
900 RIVERSIDE DRIVE,
ST. LAMBERT, QUEBEC.
J4P 3P2
TEL. (514) 672-7360

Dear

Champlain Regional College has been the recipient of a government grant for the year 1979-1980. The purpose of the research for which the grant was awarded is to assess the level of reading and writing, study habits and attitudes of students in CEGEP. The results of the research will be used to aid in the development of programmes throughout the college system.

You have been selected to aid in this research. In previous months you sat for tests of reading, writing and study skills. We now wish you to come to a post-testing session, which will be held on May 10, 1980. The testing will begin at 9:30 a.m., and will be held in rooms A-212 and A-214. We realize that the testing is a time-consuming process, and to compensate for this you will receive early registration. This special registration period has been set up before the regular registration and you will thus benefit from a wider selection of open courses.

You will, therefore, receive an appointment to register on the first day that registration takes place in June, unless you are unable to attend the testing session, in which case you will receive your regular time at registration. We would also like to ask those students who are finishing at Champlain this semester and are unaffected by early registration for next year, to come and write the exams on May 10, 1980. Your contribution to research will be invaluable. We thank you for your co-operation.

Sincerely,

Alex Potter
Academic Dean

Brian O'Boyle
Registrar

Susan Kerwin-Boudreau
Susan Kerwin-Boudreau

Susan Woodruff
Susan Woodruff

P.S. Please note that you will only be able to register early - if you have taken the tests or if you have special permission.

P.S.S. Students in Maureen Newman's reading efficiency course will not take the Diagnostic Reading Test again.

lk

APPENDIX J

Tables of Means for Significant Interactions
Experimental & Control Groups Combined, Fall & Winter Semesters

List of Tables

Table 10 — Table of Means for Study Habits Checklist, Raw Score, Group x Gender x Pre-Post Interaction, Fall Semester

Table 11 — Table of Means for Study Habits Checklist, Raw Score, Group x Pre-Post Interaction, Winter Semester

Table 12 — Table of Means for Study Habits Checklist, decile score, Group x Gender x Pre-Post Interaction, Fall Semester

Table 13 — Table of Means for Study Habits Checklist, Decile Score, Group x Gender x Pre-Post Interaction, Winter Semester

Table 14 — Table of Means for Essay Group x Gender x Pre-Post Interaction, Fall Semester

Table 15 — Table of Means for S.S.H.A., Delay Avoidance, Group x Gender x Pre-Post Interaction, Fall Semester

Table 16 — Table of Means for S.S.H.A., Work Methods, Group x Gender x Pre-Post Interaction, Fall Semester

Table 17 — Table of Means for S.S.H.A., Study Habits, Group x Gender x Pre-Post Interaction, Fall Semester

Table 18 — Table of Means for S.S.H.A., Teacher Approval, Group x Gender x Pre-Post Interaction, Fall Semester

Table 19 — Table of Means for S.S.H.A., Education Acceptance, Group x Gender x Pre-Post Interaction, Fall Semester

Table 20 — Table of Means for S.S.H.A., Study Attitudes, Group x Gender x Pre-Post Interaction, Fall Semester

Table 21 — Table of Means for S.S.H.A., Study Orientation, Group x Gender x Pre-Post Interaction, Fall Semester

Table 10
Table of Means for Study Habits Checklist, Raw Score, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	93.75	94.30	96.13	88.00	92.33
Pre Female	104.81	110.00	87.50	88.13	97.50
Post Male	90.00	102.78	103.38	115.55	100.08
Post Female	98.81	114.86	104.33	130.13	108.43

Table 11
Table of Means for Study Habits Checklist, Raw Score, Group x Gender x Pre-Post Interaction, Winter Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	91.38	102.25	84.50	92.26	92.38
Pre Female	102.85	107.38	105.66	93.86	105.39
Post Male	90.62	101.50	98.83	107.53	103.38
Post Female	108.54	117.00	102.33	113.00	109.00

Table 12
Table of Means for Study Habits Checklist, Decile Score, Group Score, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	4.17	4.00	4.75	3.33	4.33
Pre Female	4.56	5.14	2.33	1.88	3.64
Post Male	3.92	5.77	5.50	8.22	5.25
Post Female	3.69	6.29	4.17	9.38	5.64

Table 13
Table of Means for Study Habits Checklist, Decile Score, Group x Gender x Pre-Post Interaction, Winter Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	3.38	5.50	3.67	4.17	4.31
Pre Female	4.15	5.14	4.33	3.38	4.83
Post Male	3.75	5.75	4.17	6.87	5.46
Post Female	5.62	7.21	4.00	6.08	5.30

Table 14
Table of Means for Essay, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	2.92	2.46	3.75	2.56	2.67
Pre Female	2.75	3.43	3.50	3.25	2.93
Post Male	2.58	3.00	3.88	3.22	2.83
Post Female	2.75	3.43	3.67	3.38	3.21

Table 15
Table of Means for SSHA, Delay Avoidance, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	25.50	39.23	40.38	38.44	39.25
Pre Female	50.31	60.71	35.00	25.63	47.14
Post Male	35.92	45.38	52.50	67.11	35.00
Post Female	41.25	69.14	50.00	69.38	55.00

Table 16
Table of Means for SSHA, Work Methods, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	47.92	61.92	65.00	33.33	46.92
Pre Female	60.44	74.57	38.50	43.50	50.14
Post Male	35.42	62.69	51.88	67.67	30.83
Post Female	45.31	76.71	52.50	82.63	64.71

Table 17
Table of Means for SSHA, Study Habits, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	34.17	48.46	52.50	35.89	42.58
Pre Female	55.63	69.29	36.33	31.00	48.00
Post Male	34.58	55.77	53.13	68.22	30.00
Post Female	44.06	75.71	47.50	78.63	59.50

Table 18

Table of Means for SSHA, Teacher Approval, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	18.42	35.23	44.38	43.67	45.33
Pre Female	37.88	36.86	31.33	48.75	42.29
Post Male	20.25	45.77	41.63	62.00	34.33
Post Female	31.86	44.28	33.83	81.13	52.70

Table 19

Table of Means for SSHA, Education Acceptance Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	19.58	35.00	39.38	32.89	33.00
Pre Female	37.69	56.43	25.83	32.50	36.64
Post Male	19.08	35.62	33.50	52.67	27.17
Post Female	29.63	52.14	33.33	66.25	49.86

Table 20

Table of Means for SSHA, Study Attitudes, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	16.08	32.69	40.63	34.44	38.08
Pre Female	36.13	43.57	27.17	40.00	38.00
Post Male	17.67	38.85	36.00	58.00	29.08
Post Female	27.88	47.14	35.00	75.00	50.36

Table 21

Table of Means for SSHA, Study Orientation, Group x Gender x Pre-Post Interaction, Fall Semester

	Group 1	Group 2	Group 3	Group 4	Group 5
Pre Male	20.00	39.62	46.88	35.33	38.83
Pre Female	44.69	58.57	30.17	33.75	42.79
Post Male	22.33	47.69	43.25	66.11	28.25
Post Female	34.88	65.00	43.33	79.25	55.36

APPENDIX K

Tables of Means for Significant Interactions Experimental Group Only, Fall & Winter Semesters

List of Tables

Table 22 Table of Means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction, Study Habits Checklist, raw score, Winter Semester

Table 23 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction on the Study Habits Checklist, decile rank, Winter Semester

Table 24 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction on the Self-Concept Scale - Now - Fall Semester

Table 25 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the Diagnostic Reading Test

Table 26 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the Diagnostic Reading Test, Winter Semester

Table 27 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the College English Placement Test, Fall Semester

Table 28 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction on the College English Placement Test, Winter Semester

Table 29 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction, on the Essay, Fall Semester

Table 30 Table of means for subjects tutored in the Student Learning Centre, Group x Gender x Pre-Interaction, on the Essay, Winter Semester.

Table 31 Table of means for students tutored in the Student Learning Centre, Group x Gender x Pre-Post Interaction, on the Survey of Study Habits and Attitudes, Work Methods, Fall Semester

Table 32 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Work Methods, Winter Semester

Table 33 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Fall Semester

Table 34 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Winter Semester

Table 35 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Teacher Approval, Education Acceptance, Study Attitude and Study Orientation Scales, Fall Semester

Table 36 Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-test Interaction on the Survey of Study Habits and Attitudes, Education Acceptance and Study Orientation, Winter Semester

Table 22

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Study Habits Raw Score, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	80.88	91.33	120.33
Pre Female	106.00	108.73	100.69
Post Male	94.57	120.67	106.67
Post Female	118.50	107.72	106.97

Table 23

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Study Habits Decile Rank, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	2.42	4.0	9.0
Pre Female	4.25	5.45	4.25
Post Male	4.00	8.00	6.33
Post Female	7.25	4.81	5.00

Table 24

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Self-Concept Scale-Now, Fall Semester

	Group 1	Group 2	Group 3
Pre Male	86.50	96.00	103.00
Pre Female	86.00	101.57	97.66

Table 25

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Diagnostic Reading Test, Fall Semester

	Group 1	Group 2	Group 3
Pre-Male	43.75	67.25	74.00
Pre-Female	51.50	61.14	67.00

Table 26

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Diagnostic Reading Test, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	50.14	64.33	66.66
Pre Female	49.25	70.18	72.86

Table 27

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-testing Interaction on the College English Placement Test, Fall Semester

	Group 1	Group 2	Group 3
Pre Male	34.25	45.50	53.25
Pre Female	41.75	51.57	51.57

Table 28

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-testing Interaction on the College English Placement Test, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	43.85	50.00	58.33
Pre Female	38.25	54.90	64.50

Table 29

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-testing Interaction on the Essay, Fall Semester

	Group 1	Group 2	Group 3
Pre Male	2.00	3.25	2.75
Pre Female	2.50	3.28	2.66

Table 30

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-testing Interaction on the Essay, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	2.28	3.00	3.00
Pre Female	2.25	3.27	3.62

Table 31

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Work Methods, Fall Semester

	Group 1	Group 2	Group 3
Pre Male	29.50	57.50	53.75
Pre Female	36.25	61.00	43.33
Post Male	15.00	42.50	35.00
Post Female	52.50	75.14	56.66

Table 32

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Work Methods, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	20.71	63.33	79.66
Pre Female	26.25	65.00	68.75

Table 33

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Fall Semester

	Group 1	Group 2	Group 3
Pre Male	29.00	50.00	48.75
Pre Female	28.75	58.14	50.00
Post Male	16.25	37.50	36.25
Post Female	40.00	69.71	61.66

Table 34

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Interaction on the Survey of Study Habits and Attitudes, Study Habits Scale, Winter Semester

	Group 1	Group 2	Group 3
Pre Male	14.71	45.00	71.68
Pre Female	40.00	61.36	44.38

Table 35

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-Post Interaction on the Survey of Study Habits and Attitudes, Teacher Approval, Education Acceptance, Study Attitude and Study Orientation Scales, Fall Semester

Variable	Group	1	2	3
Pre Male	Teacher Approval	24.50	66.25	43.25
Pre Female		40.00	51.00	25.00
Post Male		9.25	50.00	43.75
Post Female		41.00	57.71	56.66
Pre Male	Education Acceptance	17.75	52.50	28.75
Pre Female		28.75	43.28	31.66
Post Male		10.25	40.00	31.25
Post Female		33.00	53.42	64.00
Pre Male	Study Attitude	16.5	61.25	36.50
Pre Female		33.75	45.28	26.66
Post Male		8.5	43.75	35.00
Post Female		34.75	54.85	60.66
Pre Male	Study Orientation	21.50	56.25	38.75
Pre Female		30.00	52.00	38.33
Post Male		9.75	41.25	33.75
Post Female		36.00	63.43	62.33

Table 36

Table of Means for Subjects Tutored in the Student Learning Centre Group x Gender x Pre-test Interaction on the Survey of Study Habits and Attitudes, Education Acceptance and Study Orientation, Winter Semester

Variable	Group	1	2	3
Pre Male	Education Acceptance	15.71	20.00	55.00
Pre Female		25.00	33.63	38.12
Pre Male	Study Orientation	13.71	28.33	58.33
Pre Female		25.00	45.90	40.63